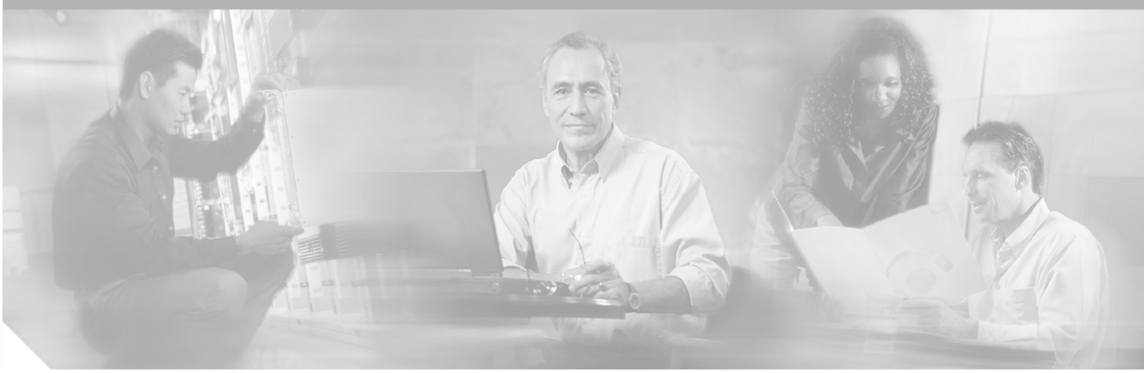
CISCO SYSTEMS



Cisco 11500 Series Content Services Switch Hardware Installation Guide

Software Version 7.40 and 7.50

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Preface

This guide is intended to help you install your Cisco 11500 Series Content Services Switches (CSS), models CSS 11501, CSS 11503, and CSS 11506. It provides you with instructions for installing, cabling, and powering the CSS. Information in this guide applies to all CSSs except where noted.

This preface describes the following topics:

Audience

Warning **Only trained and qualified personnel are allowed to install or replace this equipment.**

This guide is intended for the following trained and qualified service personnel who are responsible for installing and operating the CSS:

- System installer
- Hardware technician
- System operator

How to Use This Guide

This section describes the chapters and contents in this guide.

Chapter/Appendix	Description
Chapter 1, Unpacking and Installing the CSS	Provides instructions for unpacking and installing the CSS.
Chapter 2, Cabling and Troubleshooting the CSS	Describes the CSS 11501 integrated platform and the CSS 11503 and 11506 modular platforms, including LEDs and connectors. This chapter also provides instructions for connecting the console, powering the CSS, and troubleshooting the CSS console, modules, and power supply.
Appendix A, Specifications	Provides specifications for the CSS and its components.

Chapter/Appendix	Description
Appendix B, Cable Connector Pinouts	Provides pinouts for each connector on the CSS.
Appendix C, Connecting a Modem to the CSS	Provides information for connecting a modem to the CSS.
Appendix D, Regulatory Compliance and Safety Information for the Cisco 11500 Series Content Services Switch	Provides information on regulatory compliance and safety pertaining to the CSS.

Related Documentation

In addition to this document, the CSS documentation set includes the following:

Document Title	Description
Release Note for the Cisco 11500 Series Content Services Switch	Provides information on operating considerations, caveats, and CLI commands for the Cisco 11500 series CSS.
Cisco Content Services Switch Getting Started Guide	This guide describes how to perform initial administration and configuration tasks on the CSS, including: • Booting the CSS for the first time and a routine basis, and logging in to the CSS • Configuring the username and password, Ethernet management port, static IP routes, and the date and time • Configuring DNS server for hostname resolution • Configuring sticky cookies with a sticky overview and advanced load-balancing method using cookies • Finding information in the CSS documentation with a task list • Troubleshooting the boot process

Document Title	Description
Cisco Content Services Switch Administration Guide	This guide describes how to perform administrative tasks on the CSS, including upgrading your CSS software and configuring the following: • Logging, including displaying log messages and interpreting sys.log messages • User profile and CSS parameters • SNMP • RMON • XML documents to configure the CSS • CSS scripting language • Offline Diagnostic Monitor (Offline DM) menu
Cisco Content Services Switch Routing and Bridging Configuration Guide	This guide describes how to perform routing and bridging configuration tasks on the CSS, including: • Management ports, interfaces, and circuits • Spanning-tree bridging • Address Resolution Protocol (ARP) • Routing Information Protocol (RIP) • Internet Protocol (IP) • Open Shortest Path First (OSPF) protocol • Cisco Discovery Protocol (CDP) • Dynamic Host Configuration Protocol (DHCP) relay agent

Document Title	Description
Cisco Content Services Switch Content Load-Balancing Configuration Guide	This guide describes how to perform CSS content load-balancing configuration tasks, including: • Flow and port mapping • Services • Service, global, and script keepalives • Source groups • Loads for services • Server/Application State Protocol (SASP) • Dynamic Feedback Protocol (DFP) • Owners • Content rules • Sticky parameters • HTTP header load balancing • Content caching • Content replication
Cisco Content Services Switch Global Server Load-Balancing Configuration Guide	This guide describes how to perform CSS global load-balancing configuration tasks, including: • Domain Name System (DNS) • DNS Sticky • Content Routing Agent • Client-Side Accelerator • Network proximity
Cisco Content Services Switch Redundancy Configuration Guide	This guide describes how to perform CSS redundancy configuration tasks, including: • VIP and virtual interface redundancy • Adaptive session redundancy • Box-to-box redundancy

Document Title	Description
Cisco Content Services Switch Security Configuration Guide	This guide describes how to perform CSS security configuration tasks, including: • Controlling access to the CSS • Secure Shell Daemon protocol • Radius • TACACS+ • Firewall load balancing
Cisco Content Services Switch SSL Configuration Guide	This guide describes how to perform CSS SSL configuration tasks, including: • SSL certificate and keys • SSL termination • Back-end SSL • SSL initiation
Cisco Content Services Switch Command Reference	This reference provides an alphabetical list of all CLI commands including syntax, options, and related commands.
Cisco Content Services Switch Device Management User's Guide	This guide explains how to use the Device Management user interface, an HTML-based Web-based application that you use to configure and manage your CSS.

Symbols and Conventions

This guide uses the following symbols and conventions to emphasize certain information.

Caution A caution means that a specific action you take could cause a loss of data or adversely impact use of the equipment.

Note A note provides important related information, reminders, and recommendations.

Warning **A warning describes a specific action that could cause either physical harm to you or damage to the equipment.**

Bold text indicates a command in a paragraph.

`Courier text` indicates text that appears in a command line, including the CLI prompt.

`Courier bold text` indicates commands and text you enter in a command line.

Italics text indicates the first occurrence of a new term, book title, and emphasized text.

1. A numbered list indicates that the order of the list items is important.
   a. An alphabetical list indicates that the order of the secondary list items is important.

- A bulleted list indicates that the order of the list topics is unimportant.
  – An indented list indicates that the order of the list subtopics is unimportant.

Before you install, configure, or perform maintenance on the CSS, review the documentation for the procedure you are about to perform, paying special attention to the safety warnings. If you need translations of the safety warnings, refer to the Appendix D, Regulatory Compliance and Safety Information for the Cisco 11500 Series Content Services Switch.

Obtaining Documentation

Cisco documentation and additional literature are available on Cisco.com. Cisco also provides several ways to obtain technical assistance and other technical resources. These sections explain how to obtain technical information from Cisco Systems.

Cisco.com

You can access the most current Cisco documentation at this URL:

http://www.cisco.com/univercd/home/home.htm

You can access the Cisco website at this URL:

http://www.cisco.com

You can access international Cisco websites at this URL:

http://www.cisco.com/public/countries_languages.shtml

Documentation DVD

Cisco documentation and additional literature are available in a Documentation DVD package, which may have shipped with your product. The Documentation DVD is updated regularly and may be more current than printed documentation. The Documentation DVD package is available as a single unit.

Registered Cisco.com users (Cisco direct customers) can order a Cisco Documentation DVD (product number DOC-DOCDVD=) from the Ordering tool or Cisco Marketplace.

Cisco Ordering tool:

http://www.cisco.com/en/US/partner/ordering/

Cisco Marketplace:

http://www.cisco.com/go/marketplace/

Ordering Documentation

You can find instructions for ordering documentation at this URL:

http://www.cisco.com/univercd/cc/td/doc/es_inpck/pdi.htm

You can order Cisco documentation in these ways:

- Registered Cisco.com users (Cisco direct customers) can order Cisco product documentation from the Ordering tool:

  http://www.cisco.com/en/US/partner/ordering/

- Nonregistered Cisco.com users can order documentation through a local account representative by calling Cisco Systems Corporate Headquarters (California, USA) at 408 526-7208 or, elsewhere in North America, by calling 1 800 553-NETS (6387).

Documentation Feedback

You can send comments about technical documentation to bug-doc@cisco.com.

You can submit comments by using the response card (if present) behind the front cover of your document or by writing to the following address:

Cisco Systems
Attn: Customer Document Ordering
170 West Tasman Drive
San Jose, CA 95134-9883

We appreciate your comments.

Cisco Product Security Overview

Cisco provides a free online Security Vulnerability Policy portal at this URL:

http://www.cisco.com/en/US/products/products_security_vulnerability_policy.html

From this site, you can perform these tasks:

- Report security vulnerabilities in Cisco products.

- Obtain assistance with security incidents that involve Cisco products.
- Register to receive security information from Cisco.

A current list of security advisories and notices for Cisco products is available at this URL:

http://www.cisco.com/go/psirt

If you prefer to see advisories and notices as they are updated in real time, you can access a Product Security Incident Response Team Really Simple Syndication (PSIRT RSS) feed from this URL:

http://www.cisco.com/en/US/products/products_psirt_rss_feed.html

Reporting Security Problems in Cisco Products

Cisco is committed to delivering secure products. We test our products internally before we release them, and we strive to correct all vulnerabilities quickly. If you think that you might have identified a vulnerability in a Cisco product, contact PSIRT:

- Emergencies—security-alert@cisco.com
- Nonemergencies—psirt@cisco.com

Tip We encourage you to use Pretty Good Privacy (PGP) or a compatible product to encrypt any sensitive information that you send to Cisco. PSIRT can work from encrypted information that is compatible with PGP versions 2.*x* through 8.*x*.

Never use a revoked or an expired encryption key. The correct public key to use in your correspondence with PSIRT is the one that has the most recent creation date in this public key server list:

http://pgp.mit.edu:11371/pks/lookup?search=psirt%40cisco.com&op=index&exact=on

In an emergency, you can also reach PSIRT by telephone:

- 1 877 228-7302
- 1 408 525-6532

Obtaining Technical Assistance

For all customers, partners, resellers, and distributors who hold valid Cisco service contracts, Cisco Technical Support provides 24-hour-a-day, award-winning technical assistance. The Cisco Technical Support Website on Cisco.com features extensive online support resources. In addition, Cisco Technical Assistance Center (TAC) engineers provide telephone support. If you do not hold a valid Cisco service contract, contact your reseller.

Cisco Technical Support Website

The Cisco Technical Support Website provides online documents and tools for troubleshooting and resolving technical issues with Cisco products and technologies. The website is available 24 hours a day, 365 days a year, at this URL:

http://www.cisco.com/techsupport

Access to all tools on the Cisco Technical Support Website requires a Cisco.com user ID and password. If you have a valid service contract but do not have a user ID or password, you can register at this URL:

http://tools.cisco.com/RPF/register/register.do

Note Use the Cisco Product Identification (CPI) tool to locate your product serial number before submitting a web or phone request for service. You can access the CPI tool from the Cisco Technical Support Website by clicking the **Tools & Resources** link under Documentation & Tools. Choose **Cisco Product Identification Tool** from the Alphabetical Index drop-down list, or click the **Cisco Product Identification Tool** link under Alerts & RMAs. The CPI tool offers three search options: by product ID or model name; by tree view; or for certain products, by copying and pasting **show** command output. Search results show an illustration of your product with the serial number label location highlighted. Locate the serial number label on your product and record the information before placing a service call.

Submitting a Service Request

Using the online TAC Service Request Tool is the fastest way to open S3 and S4 service requests. (S3 and S4 service requests are those in which your network is minimally impaired or for which you require product information.) After you describe your situation, the TAC Service Request Tool provides recommended solutions. If your issue is not resolved using the recommended resources, your service request is assigned to a Cisco TAC engineer. The TAC Service Request Tool is located at this URL:

http://www.cisco.com/techsupport/servicerequest

For S1 or S2 service requests or if you do not have Internet access, contact the Cisco TAC by telephone. (S1 or S2 service requests are those in which your production network is down or severely degraded.) Cisco TAC engineers are assigned immediately to S1 and S2 service requests to help keep your business operations running smoothly.

To open a service request by telephone, use one of the following numbers:

Asia-Pacific: +61 2 8446 7411 (Australia: 1 800 805 227)
EMEA: +32 2 704 55 55
USA: 1 800 553-2447

For a complete list of Cisco TAC contacts, go to this URL:

http://www.cisco.com/techsupport/contacts

Definitions of Service Request Severity

To ensure that all service requests are reported in a standard format, Cisco has established severity definitions.

Severity 1 (S1)—Your network is “down,” or there is a critical impact to your business operations. You and Cisco will commit all necessary resources around the clock to resolve the situation.

Severity 2 (S2)—Operation of an existing network is severely degraded, or significant aspects of your business operation are negatively affected by inadequate performance of Cisco products. You and Cisco will commit full-time resources during normal business hours to resolve the situation.

Severity 3 (S3)—Operational performance of your network is impaired, but most business operations remain functional. You and Cisco will commit resources during normal business hours to restore service to satisfactory levels.

Severity 4 (S4)—You require information or assistance with Cisco product capabilities, installation, or configuration. There is little or no effect on your business operations.

Obtaining Additional Publications and Information

Information about Cisco products, technologies, and network solutions is available from various online and printed sources.

- Cisco Marketplace provides a variety of Cisco books, reference guides, and logo merchandise. Visit Cisco Marketplace, the company store, at this URL:

  http://www.cisco.com/go/marketplace/

- *Cisco Press* publishes a wide range of general networking, training and certification titles. Both new and experienced users will benefit from these publications. For current Cisco Press titles and other information, go to Cisco Press at this URL:

  http://www.ciscopress.com

- *Packet* magazine is the Cisco Systems technical user magazine for maximizing Internet and networking investments. Each quarter, Packet delivers coverage of the latest industry trends, technology breakthroughs, and Cisco products and solutions, as well as network deployment and troubleshooting tips, configuration examples, customer case studies, certification and training information, and links to scores of in-depth online resources. You can access Packet magazine at this URL:

  http://www.cisco.com/packet

- *iQ Magazine* is the quarterly publication from Cisco Systems designed to help growing companies learn how they can use technology to increase revenue, streamline their business, and expand services. The publication identifies the challenges facing these companies and the technologies to help solve them, using real-world case studies and business strategies to help readers make sound technology investment decisions. You can access iQ Magazine at this URL:

  http://www.cisco.com/go/iqmagazine

- *Internet Protocol Journal* is a quarterly journal published by Cisco Systems for engineering professionals involved in designing, developing, and operating public and private internets and intranets. You can access the Internet Protocol Journal at this URL:

  http://www.cisco.com/ipj

- World-class networking training is available from Cisco. You can view current offerings at this URL:

  http://www.cisco.com/en/US/learning/index.html



Unpacking and Installing the CSS

This chapter describes how to unpack and install the CSS as a free-standing or rack-mounted unit.

Warning **This is a class A product. In a domestic environment this product may cause radio interference, in which case the user may be required to take adequate measures.**

This chapter contains the following sections:

- Site Requirements
- Safety Guidelines
- Required Tools and Equipment
- Shipment Contents
- Unpacking the CSS
- If the Product is Damaged
- Preinstallation Requirements
- Installing the CSS 11501
- Installing the CSS 11503
- Installing the CSS 11506
- Installing a CSS Module

Note For information on installing a replacement component in the CSS (such as a replacement PCMCIA disk or a power supply), refer to the reference sheet included with the component.

Site Requirements

Before you select an installation site for the CSS, read the electrical, environmental, and physical requirements as described in Appendix A, Specifications.

Safety Guidelines

When you install the CSS, observe all of the caution and warning statements in the installation procedures. For warning translations, refer to Appendix D, Regulatory Compliance and Safety Information for the Cisco 11500 Series Content Services Switch.

Read the following guidelines to help ensure your safety and protect the equipment. These guidelines may not cover all potentially hazardous situations you may encounter during system installation, so *be alert*.

- The installation of your CSS must comply with national and local electrical codes. In the United States, this means the National Fire Protection Association (NFPA) 70, United States National Electrical Code. In Canada, Canadian Electrical Code, part I, CC22.1. In other countries, International Electrotechnical Commission (IEC) 364, part 1 through part 7.
- Keep tools and chassis components away from walk areas.
- Do not wear loose clothing, jewelry (including rings and chains), or other items that could get caught in the chassis.
- The AC-powered CSS ships with a three-wire AC electrical grounding-type plug, which only fits into a grounding-type power outlet. This is a safety feature. Ensure the equipment grounding is in compliance with local and national electrical codes.

- The DC-powered CSS 11503 and CSS 11506 are not shipped with the wiring required to connect to the DC source. You must provide input, return, and earth (grounding) wiring at the site (refer to Chapter 2, Cabling and Troubleshooting the CSS), and install and protect the wiring in accordance with local and national wiring regulations.
- The CSS operates safely when it is used in accordance with its marked electrical ratings and product usage instructions.

Warning **Only trained and qualified personnel should be allowed to install or replace this equipment.**

Chassis-Lifting Guidelines for the CSS 11503 and CSS 11506

The fully-configured CSS 11503 weighs approximately 34 pounds. The fully-configured CSS 11506 weighs approximately 58 pounds. The chassis is not intended to be moved frequently. Before you install the CSS, ensure that your site is properly prepared; by doing so, you can avoid moving the chassis later to accommodate power sources and network connections.

When lifting either the CSS 11503 or CSS 11506 chassis, follow these guidelines:

- Two or more people are required to lift the CSS 11506 chassis (as described in the procedure at the end of this section). Never attempt to lift the chassis by yourself. Because of the size and weight of the chassis, use at least two people to safely lift and move it; by doing so, you can avoid causing injury or damaging the equipment.
- When lifting a chassis, ensure that your footing is solid, and balance the weight of the chassis between your feet.
- Lift the chassis slowly; never move suddenly or twist your body as you lift.
- Keep your back straight and lift the chassis with your legs, not your back. If you must bend down to lift the chassis, bend at the knees, not at the waist, to reduce the strain on your back muscles.
- If you remove the fan assembly and power modules to lighten the chassis, be sure to provide anti-static mats or bags to protect the removed components. Be careful when you remove the power modules—they are heavy.

- Cisco Systems recommends that you leave line cards installed in the chassis. Removing line cards greatly increases the chances of damage to the chassis or components, and introduces the possibility that you will unintentionally change the configuration.
- Always disconnect all external cables before lifting or moving the chassis.

Warning **Two people are required to lift the CSS 11506 chassis. To prevent injury, keep your back straight and lift with your legs, not your back.**

To safely lift the CSS 11506 chassis, perform the following steps:

1. Stand on one side of the chassis and tell your helper to stand on the other side.
2. Place one hand under the front or side of the chassis, and tell your helper to do the same.
3. With the other hand, grasp the top-rear of the chassis and carefully lift the chassis.

Electrical Safety

Follow these basic guidelines when you are working with any electrical equipment:

- Before you begin any procedures requiring access to the chassis interior, locate the emergency power-off switch for the room in which you are working.
- Disconnect all power and external cables before installing or removing a chassis.
- Do not work alone when potentially hazardous conditions exist.
- Never assume that power has been disconnected from a circuit; always check.

- Do not perform any action that creates a potential hazard to people or makes the equipment unsafe. Never install equipment that appears damaged.
- Carefully examine your work area for possible hazards such as moist floors, ungrounded power extension cables, and missing safety grounds.

Use the following guidelines when you work with any equipment that is connected to telephone wiring or other network cabling, even if that equipment is disconnected from its power source.

- Never install telephone wiring during a lightning storm.
- Never install a telephone jack in a wet location unless the jack is specifically designed for wet locations.
- Never touch uninsulated telephone wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.

Warning **Do not work on the system or connect or disconnect cables during periods of lightning activity.**

Warning **Before you work on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and the heat can cause serious burns or weld the metal object to the terminals.**

Warning **Read the installation instructions before you connect the system to its power source.**

Specifications for Cisco 11500 Series Power Supplies

Table 1-1 describes the CSS 11501, CSS 11503, and CSS 11506 AC electrical specifications.

Table 1-1 AC Electrical Specifications

AC Specification	CSS 11501	CSS 11503	CSS 11506
Input Voltage AC	100 to 240 VAC 50 to 60 Hz	100 to 240 VAC 50 to 60 Hz	100 to 240 VAC 50 to 60 Hz
Current AC (max@ 100 VAC)	1.6 Amps	5 Amps	9 Amps
Power Consumption (maximum)	150VA	430VA	860VA
Heat Dissipation	512 BTU/hr	1468 BTU/hr	2936 BTU/hr

Table 1-2 describes the CSS 11503 and CSS 11506 DC electrical specifications.

Table 1-2 DC Electrical Specifications

DC Specification	CSS 11503	CSS 11506
Voltage DC	-48.0 to -60.0 VDC	-48.0 to -60.0 VDC
Current DC (maximum)	9 Amps	18 Amps
Power Consumption (maximum)	430VA	860VA
Heat Dissipation	1468 BTU/hr	2936 BTU/hr

Power Guidelines for DC Systems (CSS 11503 and CSS 11506)

The DC-input power supply allows the CSS 11503 and CSS 11506 to operate at –48 VDC nominal in North America and at –48 VDC or –60 VDC in Europe.

See Table 1-2 for system power specifications, including input voltage and operating frequency ranges.

Warning **Incorporate a readily accessible 2-poled disconnect device into the fixed wiring.**

Follow your local and national electrical codes for DC wiring.

Required Tools and Equipment

To install the CSS hardware, you need the following tools and equipment:

- A #1 Phillips-head screwdriver
- An anti-static wrist strap, provided in the CSS accessory kit
- A hand lift (recommended) for lifting the CSS chassis into the equipment rack

Once you complete the installation, you need a console terminal (or equivalent) that runs at 9600 baud to enter console commands (refer to Chapter 2, Cabling and Troubleshooting the CSS).

Shipment Contents

The CSS shipment contains the following items, except where noted:

- Content Services Switch
- Anti-static wrist strap
- Four rubber feet (CSS 11501 and CSS 11503 only)
- Mounting brackets and hardware (installed on the CSS 11506)
- RJ-45 to female 25-pin sub-d connector
- RJ-45 to female 9-pin sub-d connector
- RJ-45 console cable
- *Cisco 11500 Series Content Services Switch Hardware Installation Guide*
- Standard software license key. If you ordered the Enhanced feature set or the Secure Management option (which include the Secure Shell Host option and SSL strong encryption for the Device Management software), additional Claim Certificates will be included in the accessory kit.

Note If you cannot locate the Standard software license key or a license key Claim Certificate in the accessory kit, call the Cisco Licensing department in the Technical Assistance Center at (800) 553-2447 or email them at licensing@cisco.com.

Unpacking the CSS

The CSS is shipped in a protective shipping carton. The CSS 11501 is shipped as a self-contained chassis; no components can be added or removed.The CSS 11503 and CSS 11506 contains the power supply, fan unit, Switch Module (SM), Switch Control Module (SCM), and all ordered I/O modules (IOMs) preinstalled.

This section describes:

- Unpacking the CSS 11501
- Unpacking the CSS 11503 or CSS 11506
- If the Product is Damaged

Unpacking the CSS 11501

To unpack the CSS 11501:

1. Remove the CSS 11501 accessories from the shipping carton. Save the packing materials in case you need to repack the CSS later.
2. Check the configuration of the CSS 11501 and the accessories against the items listed on the packing slip. Report any discrepancies as described in "If the Product is Damaged" section.
3. To install the CSS 11501, go to the "Preinstallation Requirements" section.

Unpacking the CSS 11503 or CSS 11506

Due to the size and weight of a CSS 11503 or CSS 11506, move it to the installation site before unpacking it from the shipping carton.

To unpack the CSS 11503 or CSS 11506:

1. Remove the CSS accessories from the shipping carton. Save the packing materials in case you need to repack the CSS later.
2. Check the configuration of the CSS and the accessories against the items listed on the packing slip. Report any discrepancies as described in "If the Product is Damaged" section.

3. Carefully remove the CSS from the carton.

Warning **Two people are required to lift the CSS 11506 chassis. Grasp the chassis underneath the lower edge and lift with both hands. To prevent injury, keep your back straight and lift with your legs, not your back. To prevent damage to the chassis and components, never attempt to lift the chassis with the handles on the power supplies, fan module, or on the interface processors, or by the plastic panels on the front of the chassis. These handles were not designed to support the weight of the chassis.**

4. To install the CSS 11503 or CSS 11506, go to the "Preinstallation Requirements" section.

If the Product is Damaged

If any portion of the unit or component is damaged in transit, forward an immediate request to the delivering carrier to perform an inspection of the product and to prepare a damage report. Save the container and all packing materials until the contents are verified.

Concurrently, report the nature and extent of the damage to Customer Service. Report the problem or deficiency to Customer Service along with the model number and serial number. Upon receipt of this information, you will be provided with service instructions, or a Return Material Authorization (RMA) number and shipping information. To obtain assistance, refer to "Preface", the "Obtaining Documentation" section.

Preinstallation Requirements

Prior to installing the CSS, observe the following installation requirements:

- The ambient operating temperature is 32° to 104°F (0 to 40°C).

  If you install the CSS in a closed or multi-unit rack, the ambient operating temperature of the rack environment may be greater than the room ambient temperature. Ensure that the temperature does not exceed the CSS maximum ambient operating temperature.

- The minimum clearance requirement is 2 inches (10 cm) of air flow space on both sides of the chassis.
- Ensure that the CSS is reliably grounded to earth. Cisco Systems recommends that you do not use power strips or extension cords to connect the CSS to the power source.

Caution To prevent the chassis from overheating, never install a CSS in an enclosed rack or in a room that is not properly ventilated or air conditioned.

See the following sections for the steps to install a CSS:

- Installing the CSS 11501
- Installing the CSS 11503
- Installing the CSS 11506

Installing the CSS 11501

The CSS 11501 can be a freestanding unit or installed in a 19-inch equipment rack, as described in the following sections.

Warning **Do not remove the CSS 11501 cover. There are electrical shock hazards present in the unit if the cover is removed. The fans and power supply in a CSS 11501 are not user-serviceable or installable components.**

Note Removing the CSS 11501 cover voids its warranty.

This section covers:

- Installing a CSS 11501 as a Freestanding Unit
- Installing a CSS 11501 as a Rackmounted Unit

Installing a CSS 11501 as a Freestanding Unit

To install a freestanding CSS 11501:

1. Position the CSS 11501 on the selected flat surface.
2. Attach the rubber feet, provided in the accessory kit, to each bottom corner of the CSS.

Note All cables connect to the front of the chassis with the exception of the power cord.

Installing a CSS 11501 as a Rackmounted Unit

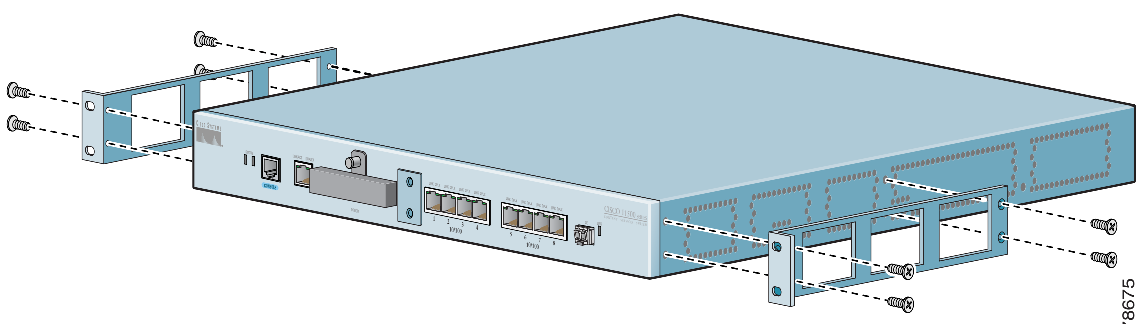
Before you begin, you need the mounting brackets and the eight Phillips screws shipped in the accessory kit accompanying the CSS 11501, and a #2 Phillips screwdriver.

To install the mounting brackets on the CSS 11501 chassis:

1. Position the CSS with its front panel facing you. On the left and right sides of its chassis, note the screw holes for installing the mounting brackets.
2. Position a mounting bracket on one side of the chassis. Align it with the appropriate screw holes for front-mounting.

   Figure 1-1 illustrates front-mounting the mounting brackets.

Figure 1-1 Front-Mounting the Mounting Brackets on the CSS 11501



3. Secure the mounting bracket to the CSS with four screws provided.
4. Repeat steps 2 and 3 to install a mounting bracket on the other side of the CSS.

You are ready to install the CSS in the rack.To install the CSS 11501 into an equipment rack:

1. Raise the CSS to the installation height and align the screw holes on the mounting bracket with the holes on the equipment rack.
2. Secure *each* mounting bracket to each side of the rack.

Installing the CSS 11503

The CSS 11503 can be a freestanding unit or installed in a 19-inch equipment rack, as described in the following sections.

Warning **Do not remove the CSS 11503 cover. There are electrical shock hazards present in the unit if the cover is removed. The fans and power supply in a CSS 11503 are not user-serviceable or installable components.**

Note Removing the CSS 11503 cover voids its warranty.

This section covers:

- Installing a CSS 11503 as a Freestanding Unit
- Installing a CSS 11503 as a Rackmounted Unit

Installing a CSS 11503 as a Freestanding Unit

To install a freestanding CSS 11503:

1. Position the CSS 11503 on the selected flat surface.
2. Attach the rubber feet, provided in the accessory kit, to each bottom corner of the CSS.

Note All cables connect to the front of the unit with the exception of the power cord.

Installing a CSS 11503 as a Rackmounted Unit

Before you rack-mount the CSS 11503:

- Determine if you want to front-mount or mid-mount the mounting brackets on the CSS chassis. Refer to the location of the mounting bars in the equipment cabinet to determine the mount position of the mounting brackets.
- Install the mounting brackets on the CSS, as described below.

Before you begin, you need the mounting brackets and the eight Phillips screws shipped in the accessory kit accompanying the CSS 11503, and a #1 Phillips screwdriver.

To install the mounting brackets on the CSS chassis:

1. Position the CSS with its front panel facing you. On the left and right sides of its chassis, note the screw holes for installing the mounting brackets.
2. Position a mounting bracket on one side of the chassis. Align it with the appropriate screw holes for front- or mid-mounting.

   Figure 1-2 illustrates front-mounting the mounting brackets. Figure 1-3 illustrates mid-mounting of the brackets.

Figure 1-2 Front-Mounting the Mounting Brackets on the CSS 11503

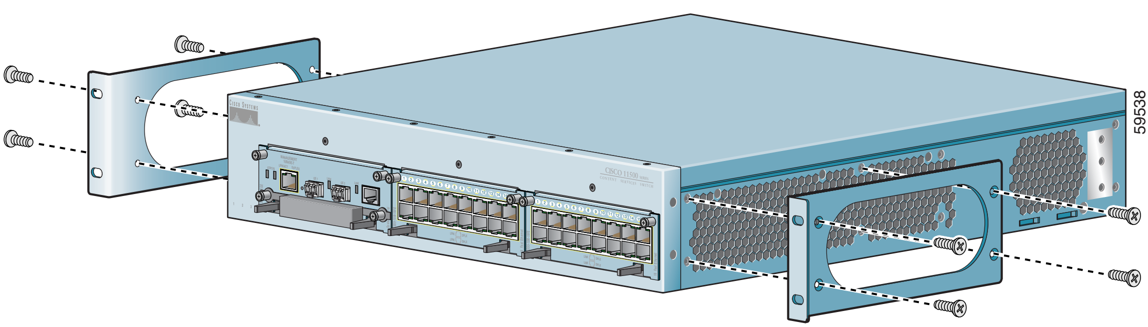
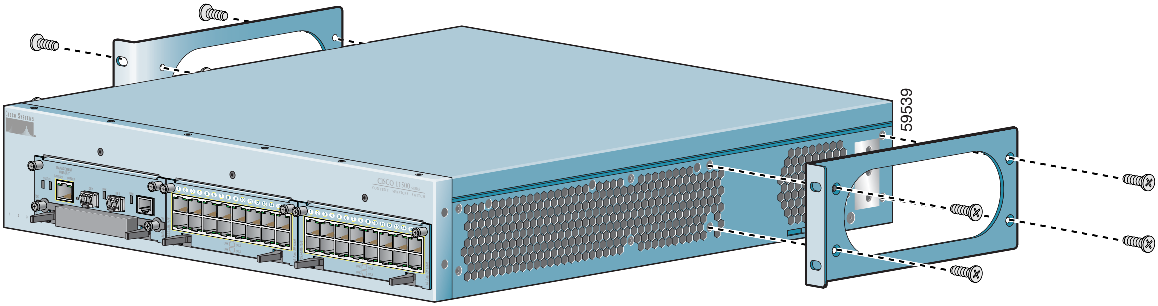


Figure 1-3 Mid-Mounting the Mounting Brackets on the CSS 11503



3. Secure the mounting bracket to the CSS with four screws provided.
4. Repeat steps 2 and 3 to install a mounting bracket on the other side of the CSS.

You are ready to install the CSS in the rack. Before you install the CSS 11503 into an equipment rack, note the following:

- Always install heavier equipment in the lower half of a rack to maintain a low center of gravity. This practice helps prevent the rack from falling over.
- Install rack stabilizers (if available) before you mount the chassis.

Warning **At least three people are required to mount the chassis in the equipment rack: two people are needed to hold the chassis in place while a third person tightens the mounting screws.**

To install the CSS 11503 into an equipment rack:

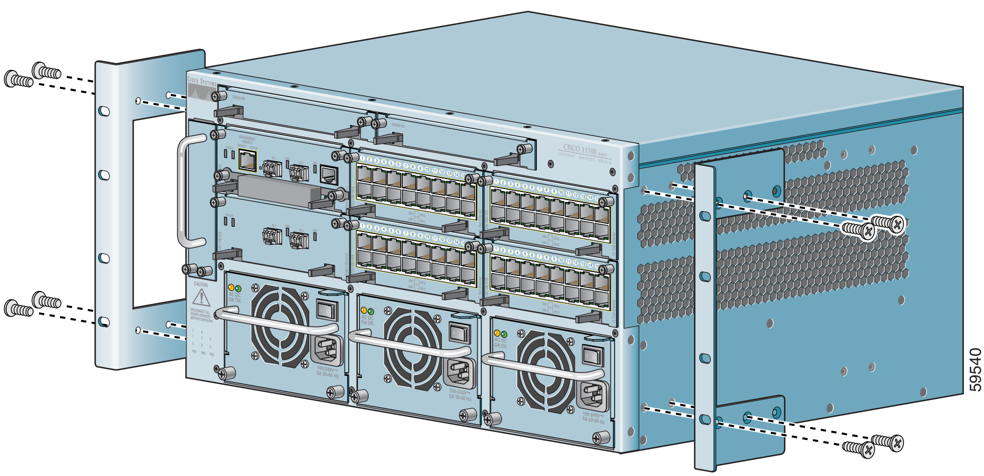
1. Raise the CSS to the installation height and align the screw holes on the mounting bracket with the holes on the equipment rack.
2. Secure *each* mounting bracket to each side of the rack.

Installing the CSS 11506

The CSS 11506 must be installed in a 19-inch equipment rack. When positioning the CSS 11506 for installation, keep in mind that all cables connect to the front of the unit.

Before you rack-mount the CSS 11506 chassis, determine whether to front-mount or mid-mount the CSS chassis in the rack. The mounting brackets are preinstalled in the front-mounted position on the chassis, as shown in Figure 1-4. They are ready for installation in the equipment cabinet, as described in the "Rack-Mounting the CSS 11506 Chassis" section. To mid-mount the mounting brackets to the chassis, proceed to the "Mid-Mounting the CSS 11506 Mounting Brackets" section.

Figure 1-4 Front-Mounting Position of the CSS 11506 Mounting Brackets



This section covers:

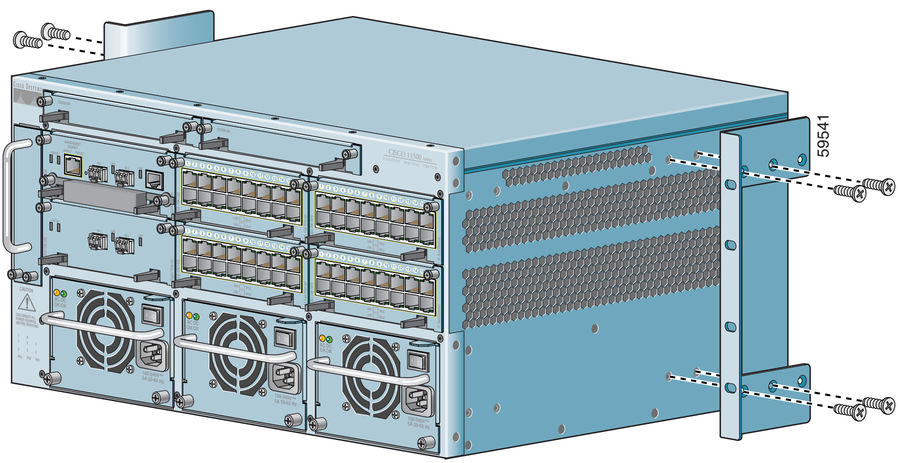
- Mid-Mounting the CSS 11506 Mounting Brackets
- Rack-Mounting the CSS 11506 Chassis

Mid-Mounting the CSS 11506 Mounting Brackets

To change the location of the mounting brackets on the CSS 11506 chassis from the front-mount position to the mid-mount position:

1. Remove the four screws securing the mounting bracket from one side of the chassis, as shown in Figure 1-4.
2. Move the mounting bracket to the mid-mount position on the CSS, lining up its screw holes with the holes on the side of the chassis. See Figure 1-5.

Figure 1-5 Mid-Mounting the Mounting Brackets on the CSS 11506



3. Using a Phillips screwdriver, secure the mounting bracket to the CSS.
4. Repeat steps 1 through 3 to reposition the other mounting bracket on the other side of the chassis.

To install the chassis in a rack, proceed to the "Rack-Mounting the CSS 11506 Chassis" section.

Rack-Mounting the CSS 11506 Chassis

You are ready to install the CSS in the rack. Before you install the CSS 11506 into an equipment rack, note the following:

- Always install heavier equipment in the lower half of a rack to maintain a low center of gravity. This practice helps prevent the rack from falling over.
- Install rack stabilizers (if available) before you mount the chassis.

Warning **At least three people are required to mount the chassis in the equipment rack: two people are needed to hold the chassis in place while a third person tightens the mounting screws.**

To install the CSS 11506 chassis into an equipment rack:

1. Raise the CSS to the installation height and align the screw holes on the mounting bracket with the holes on the equipment rack.
2. Secure *each* mounting bracket to each side of the rack.

Installing a CSS Module

The modules that you ordered with either the CSS 11503 or CSS 11506 chassis are preinstalled. If you need to reseat a module, or remove and replace it, refer to the following sections:

- Installation Precautions and Restrictions
- Unpacking a CSS Module
- Installing a Module
- Installing a Module

This information applies to the CSS modules only.

If you received an additional module at a later time, it comes with a reference sheet providing information on the module and how to install it.

Installation Precautions and Restrictions

This section includes background material related to installing a module into the CSS chassis. Cisco Systems recommends that you read the topics in this section before installing a module.

Installation Precautions

Read and observe the following precautionary information prior to servicing the CSS.

Caution You must power down the CSS 11503 or 11506 chassis to install or remove a module.

Warning **Do not remove or install modules without using appropriate anti-static guard measures. The CSS includes an anti-static wrist strap in the accessory kit. Attach the copper tape end of the strap to an unpainted metal surface on the chassis. You can leave the strap connected to the chassis when you are done.**

Warning **If you do not power down the CSS, an electrical energy hazard is present within the chassis. Prior to installing or removing components, remove all metallic objects from hands and wrists to prevent bridging of live contact points.**

Module Slot Restrictions

Prior to installing a module in a CSS, see Table 1-3 and Table 1-4 for information on chassis slot restrictions in the CSS 11503 and CSS 11506. I/O modules include the Fast Ethernet Module (FEM), Gigabit Ethernet Module (GEM), Session Accelerator Module (SAM), and Secure Socket Layer (SSL) module.

Table 1-3 CSS 11503 Chassis Slot Restriction

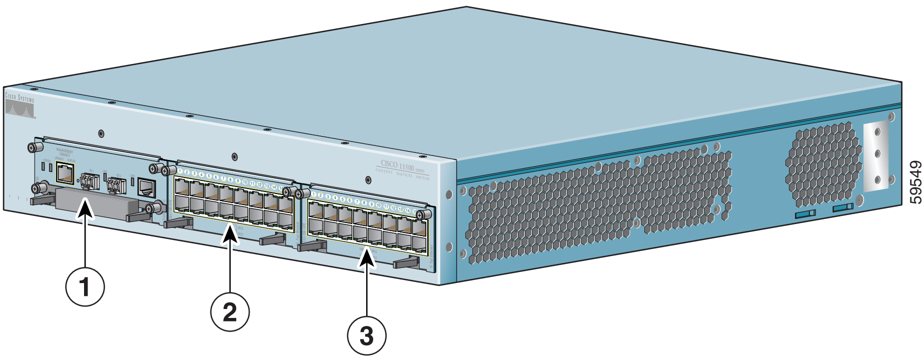
Slot Number	Slot Usage
1	Initial active Switch Control Module (SCM)
2	I/O module
3	I/O module

Table 1-4 CSS 11506 Chassis Slot Restriction

Slot Number	Slot Usage
1	Initial active Switch Control Module (SCM)
2	Initial passive SCM or I/O module
3	I/O module
4	I/O module
5	I/O module
6	I/O module

Figure 1-6 illustrates a fully-configured CSS 11503 and its slot locations.

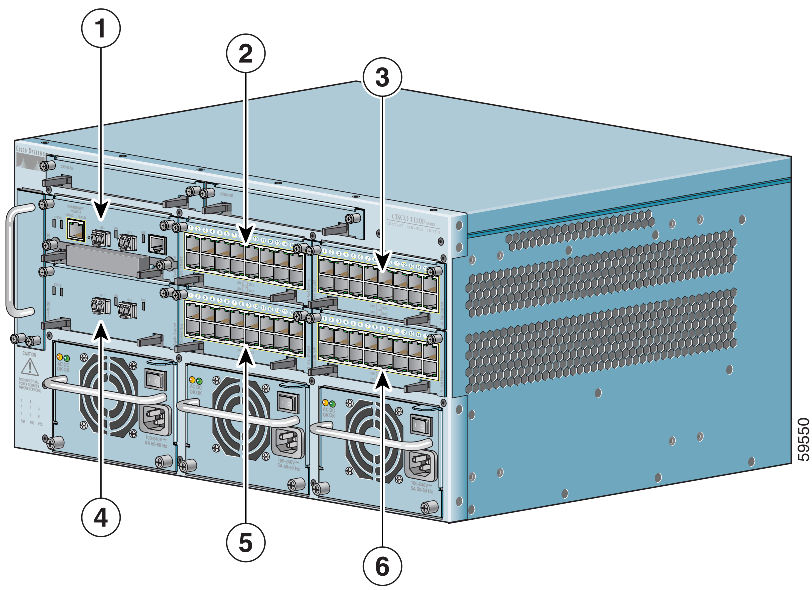
Figure 1-6 Fully-Configured CSS 11503



1	Slot location 1	**3**	Slot location 3
2	Slot location 2		

Figure 1-7 illustrates a fully-configured CSS 11506 and its slot locations.

Figure 1-7 Fully-Configured CSS 11506



1	Slot location 1	**4**	Slot location 4
2	Slot location 2	**5**	Slot location 5
3	Slot location 3	**6**	Slot location 6

Unpacking a CSS Module

To unpack a CSS module:

1. Verify that the module is the model you ordered by checking the model number listed on the side of the shipping carton.
2. Remove the module from the shipping carton, leaving it in its anti-static bag.
3. Put on the anti-static strap provided with your CSS. For example, wear the anti-static wrist strap (included in the accessory kit) and stick the copper-tape end of the strap to an unpainted metal surface on the chassis. Make sure that the wrist strap makes good contact with your skin.
4. Remove the module from the anti-static shielding bag and inspect it for damage.

   Always hold the module by the faceplate, being careful not to touch the components. If the module appears to be damaged, return it to the anti-static bag, repack it in the shipping carton, and contact your local supplier.
5. To install a module into the CSS chassis, see the "Installing a Module" section.

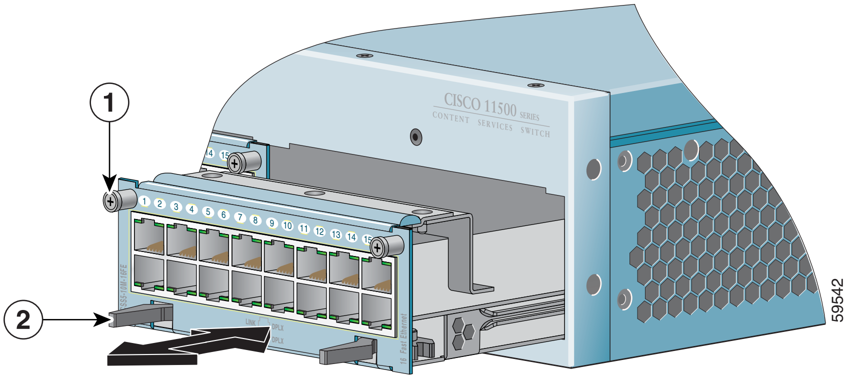
Installing a Module

Caution You must power down the CSS before installing or removing a Switch Module in a CSS 11506.

To install a module:

1. Properly ground yourself prior to handling the module. For example, wear the anti-static wrist strap (included in the accessory kit) and stick the copper-tape end of the strap to an unpainted metal surface on the chassis. Make sure that the wrist strap makes good contact with your skin.
2. If the CSS is powered up, power it down.
3. Locate an open slot in the chassis for the module. See Table 1-3 to identify possible slots for the module. If necessary, use a #1 Phillips screwdriver to remove a blank panel from the chassis to expose a slot for the module.
4. Insert the module into the board guides at the left and right of the slot. Make sure that the ejectors are fully extended outward. Slide the module into the chassis by pressing firmly at the left and right of the faceplate as shown in Figure 1-8.

Figure 1-8 Installing a Module into a CSS Chassis



1	Spring-loaded screw (one on each side)	**2**	Ejector (one on each side), extend outward during insertion

5. Close both ejectors simultaneously to seat the module connector into the backplane.
6. Using a Phillips screwdriver, tighten the spring-loaded screws on the front of the module faceplate.
7. Reboot the chassis to activate the module.

Installing a Passive SCM in a CSS 11506

You can install a passive SCM in a CSS 11506 chassis. A passive module is a stand-by module in case of an active module failure. As implemented in WebNS 5.10 and greater, if the active SCM fails:

1. The CSS reboots and connections are terminated.
2. The CSS restores all configurations using the startup-config file.
3. The passive SCM becomes active automatically.

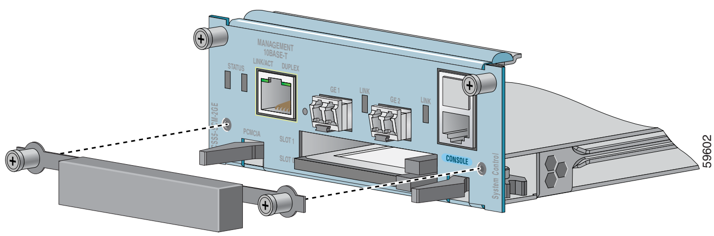
Note Passive modules do not load share processing functions with the active module.

To install a passive SCM:

1. Properly ground yourself prior to handling the module.
2. As defined in Table 1-3, SCMs are restricted to slots 1 or 2.
3. If the CSS is powered up, power it down.
4. If necessary, remove a blank panel from the chassis to expose the slot.
5. Insert the module into the board guides at the left and right of the slot and slide it into the chassis by pressing firmly at the left and right of the faceplate.
6. Extend both ejectors simultaneously to seat the module connector into the backplane.
7. Using a Phillips screwdriver, tighten the spring-loaded screws on the front of the module faceplate.

8. Optionally, you can install the PCMCIA cover to the front of the disk slots and secure it with its two spring-loaded screws, as shown in Figure 1-9. The cover protects the disks in the SCM.

Figure 1-9 Installing a PCMCIA Cover on an SCM



9. Reboot the CSS to initialize the passive SCM.

10. To copy the boot configuration from the active SCM to the passive SCM, use the **passive sync** command in boot configuration mode. For more information, refer to the *Cisco Content Services Switch Administration Guide*.



Cabling and Troubleshooting the CSS

This chapter describes the CSS 11501 integrated platform and the CSS 11503 and CSS 11506 modular platforms, including LEDs and connectors. This chapter also provides instructions for connecting the console, powering the CSS, and troubleshooting the CSS console, modules, and power supply. The information in this chapter applies to the CSS 11501, CSS 11503, and CSS 11506, except where noted.

This chapter contains the following sections:

- Cabling the CSS 11501
- Cabling the CSS 11503 and CSS 11506 Modules
- Connecting the Console
- Connecting the Chassis to Ground
- Connecting the Power Cord
- Powering Up the CSS
- Powering Down the CSS
- Troubleshooting the CSS Hardware Components

Cabling the CSS 11501

A CSS 11501 is a fully integrated platform, delivering transport and application (layers 4-7) services for Internet and Intranet data centers. The CSS 11501 is a single-rack-unit, with 6-Gbps aggregate throughput. The integrated components in the CSS 11501 contribute to the overall processing and memory needs for flow set up and flow forwarding.

The fully integrated CSS 11501 is responsible for the following functions:

- System powerup and boot control
- Centralized routing table management
- System-wide connection management
- An interface to an external Network Management Station
- Disk management
- An external RS-232 interface

The CSS 11501 configuration supports:

- 288 MB RAM memory (256 MB of usable memory)
- Two PCMCIA slots for a hard or flash disk drive for the system software, and logging and off-line system files. A cover is preinstalled over the slots.
- RJ-45 RS-232 Console port
- RJ-45 10-Mbps half-duplex Ethernet management connector
- RJ-45 RS-232 Diag connector (reserved for field service diagnostic use only).
- Eight auto-sensing 10/100-Mbps Ethernet (10BASE-T/100BASE-TX) interfaces
- Optional integrated Secure Sockets Layer (SSL) termination

- 1000-Mbps Ethernet small form-factor pluggable gigabit interface converters (SFP GBICs); 1000BASE-SX or LX with LC-type connectors, or 1000BASE-T with RJ-45 connectors.

  The CSS can use the following SFP GBIC with LC-type connectors:

  - Long-wavelength SFP GBICs (CSS5-GBIC-LX). The longwave length transceiver (1000BASE-LX) can reach 1,804.4 ft. (550 m) for all multimode media types. For single-mode fiber, the distance is 16,404 ft. (5,000 m).
  - Short-wavelength SFP GBICs (CSS5-GBIC-SX). The transceiver distance can reach from 721.8 ft. (220 m) to 1,640.4 ft. (500 m), depending on the quality of the fiber.

  The 1000BASE-T SFP GBIC on a CSS supports 1000 Mbps full-duplex operation only and uses standard four twisted-pair, Category 5e cable at lengths up to 328.08 ft.(100 m).

Warning **Because invisible radiation may be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to radiation and do not stare into open apertures.**

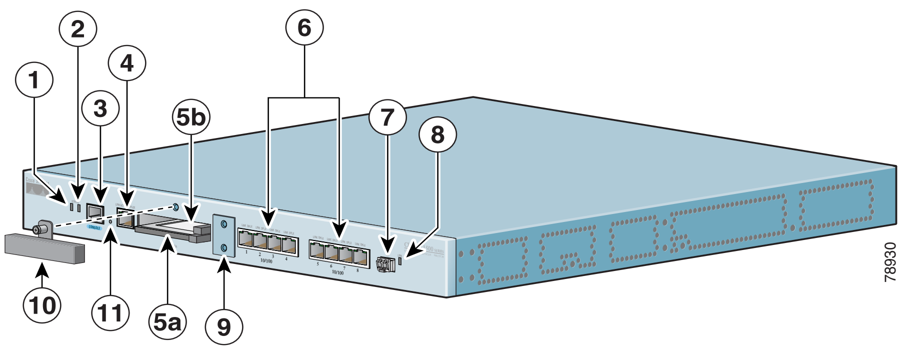
The CSS 11501 front panel LEDs indicate chassis and configuration status:

- Two status module LEDs indicating power and device readiness
- Link/Act and Duplex LEDs for the Ethernet Management port
- Link/Act and Duplex LEDs for each Ethernet port
- Link/Act LED for the SFP GBIC

CSS 11501 Connectors and LEDs

The CSS 11501 has all connectors and LEDs on the chassis front panel. Figure 2-1 illustrates the connectors and LEDs on the CSS 11501.For information on the connector pinouts, refer to Appendix B, Cable Connector Pinouts.

Figure 2-1 CSS 11501 Connectors and LEDs



1	Bicolor status LED (green and red)	**6**	RJ-45 Ethernet 10BASE-T/100BASE-TX connectors 1 through 8[1]
2	Amber status LED	**7**	SFP GBIC (optional)
3	RJ-45 RS-232 Console connector	**8**	Link LED for SFP GBIC
4	10-Mbps half-duplex Ethernet management connector	**9**	RJ-45 RS-232 Diag connector for field service diagnostic use only. (A connector cover is provided. Removing the cover voids the warranty.)
5a	PCMCIA slot 0 containing a flash or hard disk	**10**	PCMCIA slot cover
5b	PCMCIA slot 1 (shown empty) for optional installation of a second flash or hard disk	**11**	Recessed button (reserved for field service use only)

1. The Ethernet Link/Act LED and Duplex LED are located at the top of each RJ-45 Ethernet connector and are not visible in this illustration.

Table 2-1 describes the CSS 11501 LEDs and their indications.

Table 2-1 CSS 11501 LED Descriptions

LED Name	Color	State	Indicates
Status (left)	Green	Solid	The CSS 11501 is ready.
		Variable blink	Disk activity is occurring.
		Slow blink	The CSS 11501 failed.
	Red	Solid	The CSS 11501 failed the power-up self test during the boot process.
		Slow blink	The CSS 11501 failed.
	No color	Off	The CSS 11501 failed and has no power.
Status (right)	Amber	Fast blink	The CSS 11501 is running power-up self test.
		Slow blink	The CSS 11501 is offline and active.
		Off	See the left status LED for indication.
Link/Act for the Ethernet Management Port	Green	Off	There is no link.
		On	The link is established but there is no activity.
		Blinking	The link is established with transmit or receive activity.
Duplex for Ethernet Management Port	Green	Off	Port is operating at half duplex.
		On	Port is operating at full duplex.
Link/Act for Ethernet Port	Green	Off	No link established.
		On	Link established but no activity.
		Blinking	Link established with transmit or receive activity.

Table 2-1 CSS 11501 LED Descriptions (continued)

LED Name	Color	State	Indicates
Duplex for Ethernet Port	Green	Off	Port is operating at half duplex.
		On	Port is operating at full duplex.
Link /Act for the Gigabit Ethernet Port	Green	Off	There is no link.
		On	The link exists and synchronization is achieved.
		Blinking	The link is established with transmit or receive activity.

Cabling the CSS 11503 and CSS 11506 Modules

The CSS 11503 and CSS 11506 modules have connectors and LEDs on their front panels. The following sections describe:

- CSS 11503 and CSS 11506 Module Overview
- Switch Control Module Connectors and LEDs
- Fast Ethernet Module Connectors and LEDs
- Gigabit Ethernet Module Connectors and LEDs
- Session Accelerator Module LEDs
- Secure Socket Layer (SSL) Module LEDs

For information on the connector pinouts, refer to Appendix B, Cable Connector Pinouts.

If you encounter problems with the modules in the CSS 11503 and CSS 11506, see the "Troubleshooting the CSS Modules" section later in this chapter.

CSS 11503 and CSS 11506 Module Overview

The CSS 11503 and CSS 11506 are compact modular platforms, delivering transport and application (layers 4-7) services for Internet and Intranet data centers. A CSS is a fully-distributed architecture with all modules in the system contributing to the overall processing and memory needs for flow set up. Performance increases incrementally as you add modules, and the modules balance the overall traffic load.

- The Cisco 11506 is a five-rack unit, supporting six-slots, with 40-Gbps aggregate throughput. The CSS 11506 requires at least one Switch Control Module (SCM) and may be configured with a second SCM in standby mode for redundancy. With the required SCM in one slot, the CSS 11506 has five additional slots supporting any combination of I/O modules.
- The Cisco 11503 is a two-rack-unit, supporting three-slots, with 20-Gbps aggregate throughput. The CSS 11503 requires an SCM and accommodates any two of the other modules.

Though all modules except for the SSL module participate in flow setup, they differ primarily in control functions, performance, and I/O. Each CSS 11500 module consists of one high-speed MIPS RISC processor for flow-setup, one network processor for flow forwarding, one policy co-processor for search operations and a maximum of 288 MB of RDRAM (up to 256 MB of usable memory).

The CSS 11506 not only supports redundancy in SCMs but also supports redundant power supplies and redundant Switch Modules (20 Gbps each). A CSS 11506 can contain a maximum of three power supplies, but it requires two functioning power supplies to guarantee service.

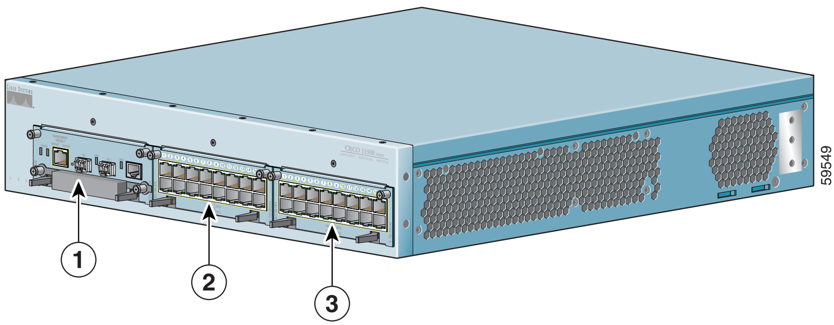
The CSS modules are as follows:

- 288 MB (256 MB of usable memory) Switch Control Module (SCM) with:
  - Two 1000-Mbps Ethernet small form-factor pluggable gigabit interface converters (SFP GBICs); 1000BASE-SX or LX with LC-type connectors, or 1000BASE-T with RJ-45 connectors.
  - Two PCMCIA slots for a hard or flash disk drive for the system software, and logging and off-line system files.
  - RJ-45 RS-232 console port.
  - 1 RJ-45 10-Mbps half-duplex Ethernet management connector.

- Switch Module (SM). An SM provides connectivity among the SCM and IOMs.
  - The CSS 11503 has a single integrated SM. A single SM has an aggregate throughput of 20 Gbps.
  - The CSS 11506 has two removable SMs that share the switching functions. Two SMs provide 40 Gbps aggregate throughput. As implemented in WebNS 5.10 and greater, if one SM fails, the CSS reboots and continues to operate through the other SM.
- Two slots in the CSS 11503 and five slots in the CSS 11506 are configurable with:
  - Fast Ethernet Modules that provide either 8 or 16 auto-sensing 10/100-Mbps Ethernet (10BASE-T/100BASE-TX) RJ-45 ports.
  - Gigabit Ethernet Modules that provide up to two 1000-Mbps Ethernet SFP GBICs; 1000BASE-SX or LX with LC-type connectors, or 1000BASE-T with RJ-45 connectors.
  - A Session Accelerator Module (SAM) that provides a cost-effective way to add flow performance when additional connectivity is not required. Using the same flow setup and forwarding processors as the I/O modules, it provides the flexibility to optimize the CSS for port density and performance.
  - A Secure Socket Layer (SSL) module that functions as an SSL server by adding security services between the Web browsers (the client) and HTTP servers and backend SSL servers. The SSL module is responsible for all user authentication, public/private key generation, certificate management, and packet encryption and decryption functions between the client and the server. Each SSL module terminates SSL connections received from a client. The CSS 11503 supports a maximum of two SSL modules and the CSS 11506 supports a maximum of four SSL modules. For information on SSL commands and functions, refer to the *Cisco Content Services Switch SSL Configuration Guide*.
  - An additional SCM to serve as a passive redundant module.

Figure 2-2 illustrates a fully-configured CSS 11503 and its components.

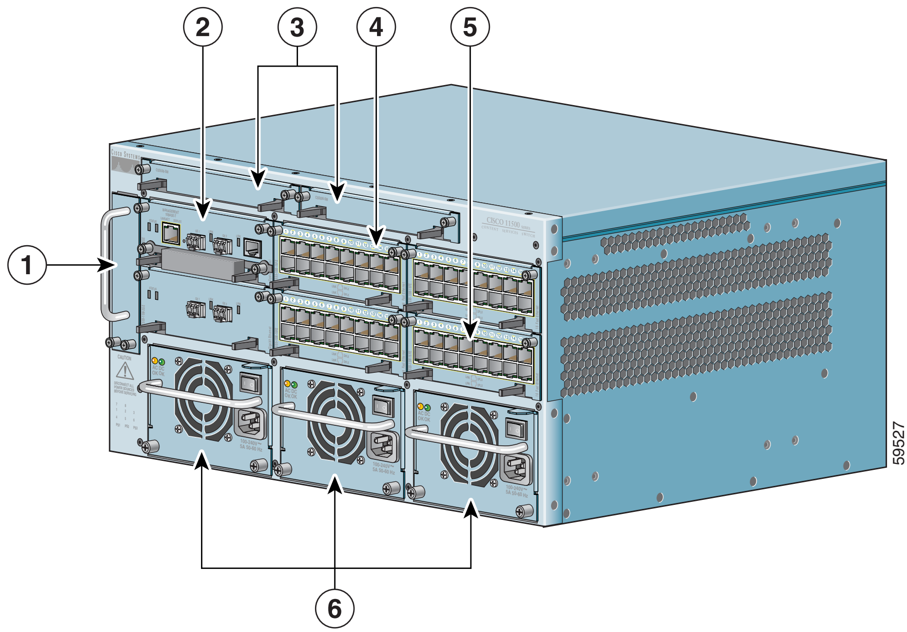
Figure 2-2 CSS 11503 Content Services Switch



1	Slot 1 for the SCM only	**3**	Slot 3 for an I/O module
2	Slot 2 for an I/O module		

Figure 2-3 illustrates a fully-configured CSS 11506 and its components.

Figure 2-3 CSS 11506 Content Services Switch



1	Fan module	**4**	Slot 2 for an SCM or I/O module
2	Slot 1 for the SCM	**5**	Slot 6[1]
3	Switch Modules in slots 7 and 8	**6**	Power supplies 1, 2, and 3

1. Slots 3 through 6 are for I/O modules, including SAMs and SSL modules.

Switch Control Module Connectors and LEDs

The Switch Control Module (SCM), model CSS5-SCM-2GE, provides master control and is responsible for the following functions:

- System powerup and boot control
- Centralized routing table management
- System-wide connection management
- An interface to an external Network Management Station
- Disk management
- An external RS-232 interface

A CSS supports a maximum of two SCMs, one active and one passive.

The Switch Control Module contains the following connectors and slots:

- 1 RJ-45 10-Mbps half-duplex Ethernet management connector.
- 1 RJ-45 RS-232 Console connector.
- 1 RJ-45 RS-232 Diag connector (reserved for field service diagnostic use only).

- 2 SFP GBICs; 1000BASE-SX or LX with LC-type connectors, or 1000BASE-T with RJ-45 connectors.

  The SCM can use the following GBICs with LC-type connectors:

  - Long-wavelength SFP GBICs (CSS5-GBIC-LX). The longwave length transceiver (1000BASE-LX) can reach 1,804.4 ft. (550 m) for all multimode media types. For single-mode fiber, the distance is 16,404 ft. (5,000 m).
  - Short-wavelength SFP GBICs (CSS5-GBIC-SX). The transceiver distance can reach from 721.8 ft. (220 m) to 1,640.4 ft. (500 m), depending on the quality of the fiber.

Warning **Because invisible radiation may be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to radiation and do not stare into open apertures.**

  The 1000BASE-T SFP GBIC on a CSS supports 1000 Mbps full-duplex operation only and uses standard four twisted-pair, Category 5e cable at lengths up to 328.08 ft. (100 m).

- Two PCMCIA slots for a hard disk or flash disk. A cover is preinstalled over the slots.

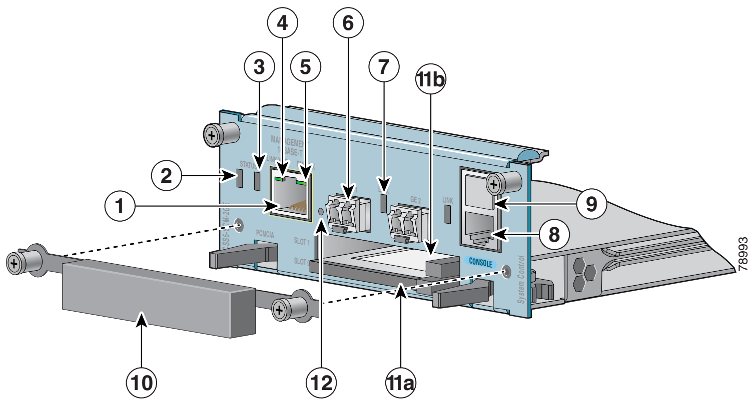
Note The SCM can have a maximum of two disk drives.

The SCM front panel LEDs indicate module and configuration status:

- Two status module LEDs indicating power and module readiness
- Link/Act and Duplex LEDs for the Ethernet management port
- Link LEDs for each SFP GBIC

Figure 2-4 illustrates the SCM front panel connectors, PCMCIA slots, and LEDs.

Figure 2-4 Switch Control Module Connectors and LEDs



1	10-Mbps half-duplex Ethernet management connector	**8**	RJ-45 RS-232 Console connector
2	Bicolor status LED (green and red)	**9**	RJ-45 RS-232 Diag connector for field service diagnostic use only. (A connector cover is provided. Removing the cover voids the warranty.)
3	Amber status LED	**10**	PCMCIA slot cover
4	Link/Act LED	**11a**	PCMCIA slot 0 containing a flash or hard disk
5	Duplex LED	**11b**	PCMCIA slot 1 (shown empty) for optional installation of a second flash or hard disk
6	SFP GBIC (one of two)	**12**	Recessed button (reserved for field service use only)
7	Link LED for the associated SFP GBIC on the left		

Table 2-2 describes the SCM LEDs and their indications.

Table 2-2 Switch Control Module LED Descriptions

LED Name	Color	State	Indicates
Status (left)	Green	Solid	The module is ready.
		Variable blink	Disk activity is occurring.
		Slow blink	Another CSS module failed.
	Red	Solid	The module failed the power-up self test during the boot process.
		Slow blink	The module failed.
	No color	Off	The module failed and has no power.
Status (right)	Amber	Fast blink	The module is running power-up self test.
		Slow blink	The module is offline and active.
		Solid	The module is online and not active (passive SCM).
		Off	See the left status LED for indication.
Link/Act for the Ethernet Management Port	Green	Off	There is no link.
		On	The link is established but there is no activity.
		Blinking	The link is established with transmit or receive activity.
Link for each Gigabit Ethernet Port	Green	Off	There is no link.
		On	The link exists and synchronization is achieved.
		Blinking	The link is established with transmit or receive activity.

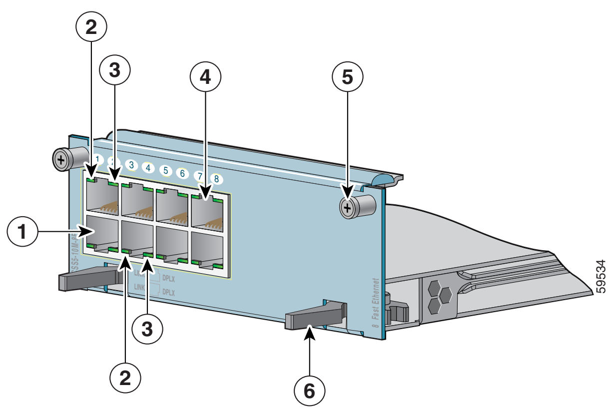
Fast Ethernet Module Connectors and LEDs

The FEM is available in two models:

- Model CSS5-IOM-8FE contains 8 auto-sensing RJ-45 Fast Ethernet 10/100-Mbps 10BASE-T/100BASE-TX connectors.
- Model CSS5-IOM-16FE contains 16 auto-sensing RJ-45 Fast Ethernet 10/100-Mbps 10BASE-T/100BASE-TX connectors.

Each connector has Link and Duplex LEDs. The LEDs indicate the module and network status. Figure 2-5 illustrates the LEDs and connectors on the 8-port FEM.

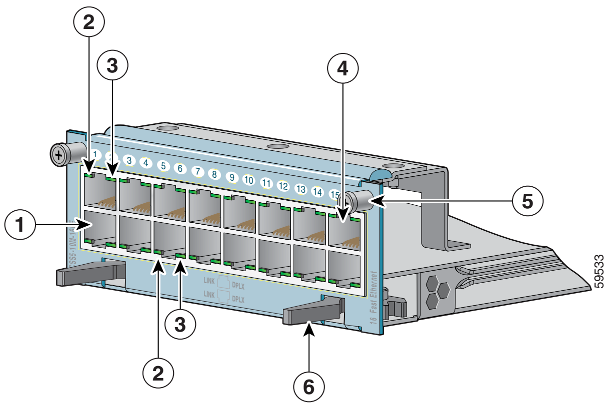
Figure 2-5 8-Port Fast Ethernet Module Connectors and LEDs



1	RJ-45 Ethernet 10BASE-T/100BASE-TX connector 1 (connector 2 is shown directly above it)	**4**	RJ-45 Ethernet 10BASE-T/100BASE-TX connector 8 (connector 7 is shown directly below it)
2	Link LED (on each connector)	**5**	Spring-loaded screw (one of two)
3	Duplex LED (on each connector)	**6**	Ejector (one of two)

Figure 2-6 illustrates the LEDs and connectors on the 16-port FEM.

Figure 2-6   16-Port Fast Ethernet Module Connectors and LEDs



1	RJ-45 Ethernet 10BASE-T/100BASE-TX connector 1 (connector 2 is shown directly above it)	**4**	RJ-45 Ethernet 10BASE-T/100BASE-TX connector 16 (connector 15 is shown directly below it)
2	Link LED (on each connector)	**5**	Spring-loaded screw (one of two)
3	Duplex LED (on each connector)	**6**	Ejector (one of two)

Table 2-3 describes the FEM LEDs and their indications.

Table 2-3 Fast Ethernet Module LED Descriptions

LED Name	Color	State	Indicates
Link	Green	Off	No link established
		On	Link established but no activity
		Blinking	Link established with transmit or receive activity
Duplex	Green	Off	Port is operating at half duplex
		On	Port is operating at full duplex

Note If all of the FEM Link and Duplex LEDs blink synchronously, the module has failed.

Gigabit Ethernet Module Connectors and LEDs

The Gigabit Ethernet Module (GEM), model CSS5-IOM-2GE, contains two 1000-Mbps SFP GBICs; 1000BASE-SX or LX with LC-type connectors, or 1000BASE-T with RJ-45 connectors.

The GEM can use the following GBICs with LC-type connectors:

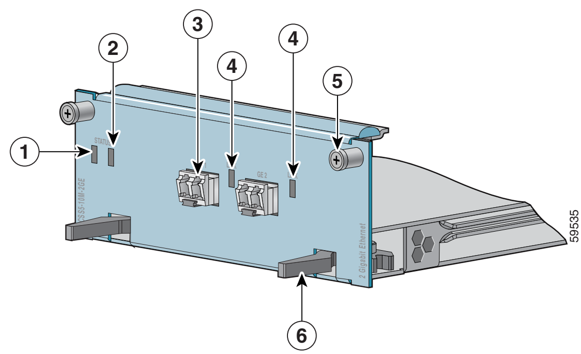
- Long-wavelength SFP GBICs (CSS5-GBIC-LX). The longwave length transceiver (1000BASE-LX) can reach 1,804.4 ft. (550 m) for all multimode media types. For single-mode fiber, the distance is 16,404 ft. (5,000 m).
- Short-wavelength SFP GBICs (CSS5-GBIC-SX). The transceiver distance can reach from 721.8 ft. (220 m) to 1,640.4 ft. (500 m), depending on the quality of the fiber.

Warning **Because invisible radiation may be emitted from the aperture of the port when no fiber cable is connected, avoid exposure to radiation and do not stare into open apertures.**

The 1000BASE-T SFP GBIC on a CSS supports 1000 Mbps full-duplex operation only and uses standard four twisted-pair, Category 5e cable at lengths up to 328.08 ft. (100 m).

The GEM front panel LEDs indicate the network status for each of the connectors (Link LEDs). Figure 2-7 illustrates the LEDs and connectors on a GEM.

Figure 2-7 Gigabit Ethernet Module Connectors and LEDs



1	Bicolor status LED (green and red)	**4**	Link LED (next to its corresponding SFP GBIC)
2	Amber status LED	**5**	Spring-loaded screw (one of two)
3	SFP GBIC (one of two)	**6**	Ejector (one of two)

Table 2-4 describes the GEM LEDs.

Table 2-4 Gigabit Ethernet Module LED Descriptions

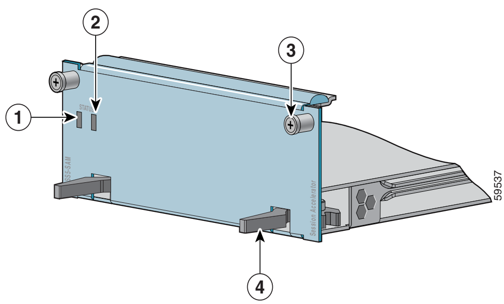
LED Name	Color	State	Indicates
Status (left)	Green	Solid	The module is ready.
	Red	Solid	The module failed the power-up self test during the boot process.
		Slow blink	The module failed.
	No color	Off	The module failed and has no power.
Status (right)	Amber	Fast blink	The module is running power-up self test.
		Slow blink	The module is offline and active.
		Solid	The module is online and not active.
		Off	See the left status LED for indication.
Link	Green	Off	There is no link.
		On	The link exists and synchronization is achieved.
		Blinking	The link is established with transmit or receive activity.

Session Accelerator Module LEDs

The Session Accelerator Module (SAM), model CSS5-SAM, is used with the SCM to provide additional processing support for session setup. The SAM front panel LEDs indicate its operational status. The SAM has no connectors.

Figure 2-8 illustrates the SAM front panel LEDs.

Figure 2-8 Session Accelerator Module LEDs



1	Bicolor status LED (green and red)	**3**	Spring-loaded screw (one of two)
2	Amber status LED	**4**	Ejector (one of two)

Table 2-5 describes the LEDs.

Table 2-5 Session Accelerator Module LED Descriptions

LED Name	Color	State	Indicates
Status (left)	Green	Solid	The module is ready.
	Red	Solid	The module failed the power-up self test during the boot process.
		Slow blink	The module failed.
	No color	Off	The module failed and has no power.
Status (right)	Amber	Fast blink	The module is running power-up self test.
		Slow blink	The module is offline and active.
		Solid	The module is online and not active.
		Off	See the left status LED for indication.

Secure Socket Layer (SSL) Module LEDs

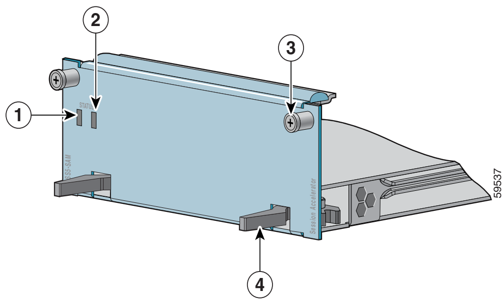
The Secure Socket Layer (SSL) module, model CSS5-SSL-K9, operates as an SSL server by adding security services between Web browsers (the client) and HTTP servers. The SSL module is responsible for all user authentication, public/private key generation, certificate management, and packet encryption and decryption functions between the client and the server. Each SSL module terminates SSL connections received from a client.

The front panel LEDs on the module indicate its operational status. The SSL module has no connectors.

The CSS 11503 supports a maximum of two SSL modules and the CSS 11506 supports a maximum of four SSL modules.

Figure 2-9 illustrates the SSL module front panel LEDs.

Figure 2-9 SSL Module LEDs



1	Bicolor status LED (green and red)	**3**	Spring-loaded screw (one of two)
2	Amber status LED	**4**	Ejector (one of two)

Table 2-6 describes the LEDs.

Table 2-6 SSL Module LED Descriptions

LED Name	Color	State	Indicates
Status (left)	Green	Solid	The module is ready.
	Red	Solid	The module failed the power-up self test during the boot process.
		Slow blink	The module failed.
	No color	Off	The module failed and has no power.
Status (right)	Amber	Fast blink	The module is running power-up self test.
		Slow blink	The module is offline and active.
		Solid	The module is online and not active.
		Off	See the left status LED for indication.

Connecting the Console

To connect a console to the CSS, attach the console cable (provided in the accessory kit) to the Console port on the CSS. Your terminal settings must match the CSS default settings specified in Table 2-7.

Table 2-7 CSS Console Port Default Settings

Parameters	Default Settings
Baud	9600
Data Bits	8
Parity	None
Stop Bits	1
Terminal Type	VT100/ANSI
Flow Control	None

If a communications problem occurs between the CSS and a console, see the "Troubleshooting the Console Interface" section later in this chapter.

Connecting the Chassis to Ground

Connecting the CSS 11503 or CSS 11506 chassis to earth ground is required for all DC-powered installations, and any AC-powered installation where compliance with Telcordia (formerly Bellcore) grounding requirements is necessary. Have the recommended tools and supplies available before you begin this procedure (see Table 2-8).

Warning **Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.**

Tools and Supplies

The accessory kit shipped with the CSS contains the following items used in this procedure:

- One 2-hole grounding lug (Panduit no. LCD6-10A-L)
- Two M5 screws for the grounding lug

Table 2-8 lists the other tools, equipment, and supplies that you need to connect system ground to the chassis. These are items that you must supply.

Table 2-8 Tools and Supplies

Quantity	Description	Comments
1	Number 2 Phillips screwdriver	—
1	Wire stripping tool	Choose a tool that does not nick the wire.
Varies	Grounding wire	6 AWG, 0.204 in. (5.18 mm) recommended. The wire should have applicable agency approvals such as Telcordia.
Varies	Screws to attach ground wire to grounding point at site	Part requirements depend on location.
1 or 2	2-hole grounding lug. Lug must fit 6 AWG stranded copper or 37/24 flex cables. Each lug must have two holes, centered 0.625 in. (1.587 cm) apart, and must accept M5 screws. One lug is supplied by Cisco Systems in the accessory kit. The supplied lug is for the router end of the ground wire. You may wish to use a lug other than the one supplied. If you need a lug for the facility end of the ground wire, you must supply it.	Recommended types: • Panduit no. LCD6-10A-L (1 supplied in accessory kit) • Panduit no. LCC6-10A-L (long barrel) • Thomas & Betts no. 256-30695-1183(*4*) • Burndy no. YA6CL2TC10

Table 2-8 Tools and Supplies (continued)

Quantity	Description	Comments
1	Crimping tool	Must fit diameter of grounding lugs. Cisco Systems recommends that you use a crimping tool recommended by the lug manufacturer.
2	M5 screws with captive, locking washers	Included in accessory kit shipped with the CSS.

Attaching the Grounding Cable

The following procedure describes how to attach:

- The grounding lug to the grounding cable
- The grounding cable to the chassis

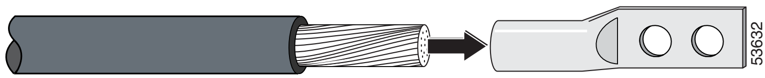
Warning **When you install or replace the unit, the ground connection must always be made first and disconnected last.**

1. Power off the chassis by setting the power switch (or switches) to the **O** (off) position.
2. Strip the covering from the end of the grounding wire (Figure 2-10). The amount of covering to be stripped varies depending on the type of lug you plan to attach to the wire.

Lug	Strip Length
Panduit no. LCD6-10A-L (supplied in accessory kit)	13/16 inch (2 cm)
Panduit no. LCC6-10A-L (long barrel)	1 1/16 inch (2.7 cm)
Thomas & Betts no. 256-30695-1183(*4*)	3/4 inch (1.9 cm)
Burndy no. YA6CL2TC10	7/8 inch (2.2 cm)

3. Insert the stripped end of the grounding wire into the open end of a lug (Figure 2-10) and crimp the grounding lug securely to the wire. Use the lug manufacturer's recommended crimping tool and crimping procedure to ensure a proper crimp.

Figure 2-10 Attaching Grounding Wire to Grounding Lug



4. Attach the grounding lug firmly to the threaded holes on the chassis using two M5 screws.
   - On the CSS 11503 chassis, the holes are located on the left side (looking from the rear) near the bottom rear corner.
   - On the CSS 11506 chassis, the holes are located on the right rear panel.

   The three threaded holes are unevenly spaced to accommodate different lugs.
5. Strip the covering from the other end of the grounding wire. See the table in step 2 for strip lengths for different lugs.
6. Insert the stripped end of the grounding wire into the open end of a grounding lug and crimp the grounding lug securely to the wire.
7. Attach the grounding lug to an appropriate grounding point at your site.
8. Proceed to the "Connecting the Power Cord" section.

Connecting the Power Cord

The CSS 11500 series models are powered by either an AC or DC power supply. Before you install the AC or DC power cord, ensure that you have read Appendix A, Specifications, for information on the electrical specifications. The following sections describe:

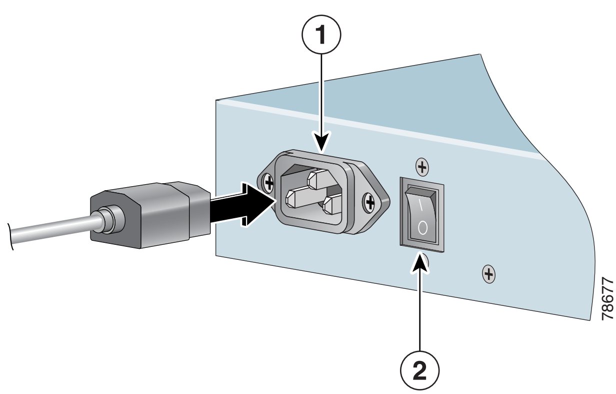
- Connecting a CSS 11501 Power Cord
- Connecting a CSS 11503 Power Cord
- Connecting a CSS 11506 Power Cord
- Checking the DC Power Connection (CSS 11503 and CSS 11506)

Connecting a CSS 11501 Power Cord

To connect an AC power cord to a CSS 11501:

1. At the rear of the chassis, ensure that the CSS power switch is in the **O** (off) position.
2. Plug the AC power cord connector into the CSS power connector, as shown in Figure 2-11.

Figure 2-11 Connecting a CSS 11501 AC Power Cord



1	AC power connector	2	Power switch

3. Plug the power cord into a dedicated 3-wire grounding receptacle.
4. See the "Powering Up the CSS" section to power on the CSS.

Note The CSS 11501 power supply is autosensing for voltage and frequency, and it requires no additional modifications.

Connecting a CSS 11503 Power Cord

The following sections provide information on:

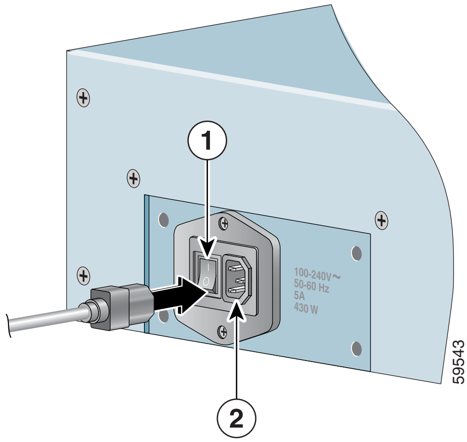
- Connecting a CSS 11503 AC Power Cord
- Connecting a CSS 11503 DC Power Cord

Connecting a CSS 11503 AC Power Cord

To connect an AC power cord to a CSS 11503:

1. At the rear of the chassis, ensure that the CSS power switch is in the **O** (off) position.
2. Plug the AC power cord connector into the CSS power connector, as shown in Figure 2-12.

Figure 2-12 Connecting a CSS 11503 AC Power Cord



1	Power switch	**2**	AC power connector

3. Plug the power cord into a dedicated 3-wire grounding receptacle.
4. See the "Powering Up the CSS" section to power on the CSS.

Note The CSS 11503 power supply is autosensing for voltage and frequency, and it requires no additional modifications.

Connecting a CSS 11503 DC Power Cord

Before you install a DC power cord, refer to Appendix A, Specifications, for the DC power supply.

Warning **The DC power supply cord requires at least a 14 AWG wire (maximum 10 AWG wire). The CSS 11503 draws a maximum of 10 amps.**

Warning **Use copper conductors only.**

Warning **Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.**

Warning **Before performing the DC installation procedure, ensure that power is removed from the DC circuit. To ensure that all power is off, locate the circuit breaker that services the DC circuit and switch it off.**

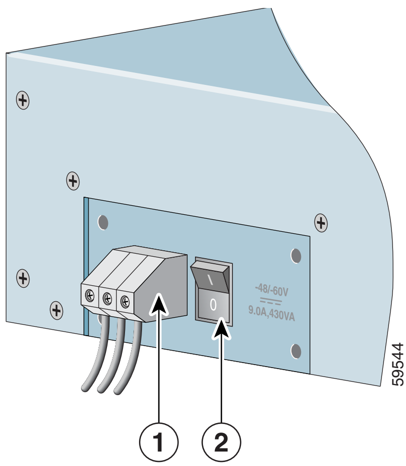
Warning **When you are installing or replacing the unit, the ground connection must always be made first and disconnected last.**

Warning **Only a DC power source that is isolated from AC mains with reinforced insulation, and that complies with the other safety extra-low voltage (SELV) requirements in UL1950, CSA 950 3rd Edition, EN 60950, and IEC950, can be connected to a Cisco 11503 system. This requirement ensures that in a catastrophic power source fault condition, hazardous voltages are not present on power terminals and connectors.**

To connect the CSS 11503 DC power supply to a power source:

1. At the rear of the chassis, ensure that the CSS power switch is in the **O** (off) position.
2. Locate the DC terminal block on the rear of the chassis as shown in Figure 2-13.

Figure 2-13 Location of the CSS 11503 DC Power Supply Connectors



1	Terminal block (–, +, and ⏚)	**2**	Power switch

3. Using a flat-head screwdriver, loosen the captive screws on the three DC connectors (labeled from left to right, –, +, and ⏚, respectively).

Warning **Before installing a wire, ensure that the polarity of the DC connections is correct. Reversed polarity causes damage to the DC power supply and can create a dangerous shock hazard.**

Do not consolidate the end of a conductor by soft soldering prior to installation.

4. Install the wires into the appropriate connector. Make sure that the non-insulated part of each wire is 9 mm (0.35 inches) in length.

Warning **When installing the wires, always connect the ground wire first. When disconnecting the wires, always disconnect the ground wire last.**

5. Tighten the captive screws to 5 to 7 inch-pounds (0.6 to 0.8 Nm) of torque to secure the wires in the connectors. Ensure that the wires are held firmly in place.
6. Install the wires to the DC power source.

   For the proper power cable wiring between the CSS 11503 and DC power source, see Table 2-9.

Table 2-9 CSS 11503 to DC Power Source Cabling

CSS 11503	DC Power Source
⏚ (Ground)	⏚ (Ground)
+	+
–	–

Warning **The proper wiring sequence is ground to ground, positive to positive, and negative to negative. The ground wire should always be connected first and disconnected last.**

7. Switch on the circuit breaker that services the DC circuit.
8. To check the DC power connection, see the "Checking the DC Power Connection (CSS 11503 and CSS 11506)"section.

Connecting a CSS 11506 Power Cord

The following sections provide information for connecting an AC or DC power cords to a CSS 11506.

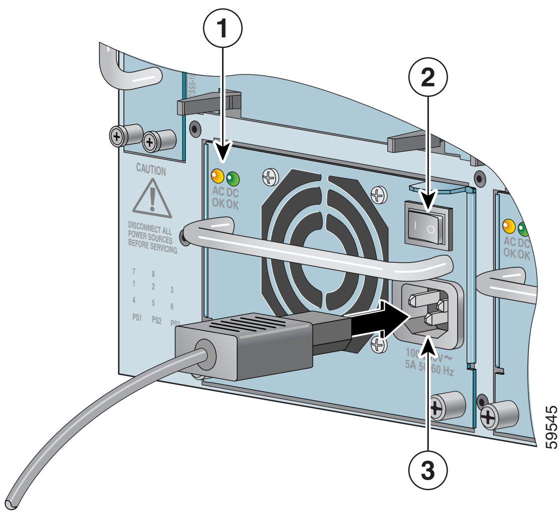
- Connecting a CSS 11506 AC Power Cord
- Connecting a CSS 11506 DC Power Cord

Connecting a CSS 11506 AC Power Cord

To connect the AC power cord to each power supply in the CSS 11506:

1. At the front of the supply, ensure that the CSS power switch is in the **O** (off) position.
2. Plug the AC power cord connector into the power connector, as shown in Figure 2-14.

Figure 2-14 Connecting a CSS 11506 AC Power Cord



1	Power supply LEDs	**3**	AC power connector
2	Power switch		

3. Plug the power cord into a dedicated 3-wire grounding receptacle.
4. Repeat steps 1 through 3 for each power supply.
5. See the "Powering Up the CSS" section to power on the CSS.

Note The CSS 11506 power supplies are autosensing for voltage and frequency, and they require no additional modifications.

Connecting a CSS 11506 DC Power Cord

Before you install a DC power cord, refer to Appendix A, Specifications, for the DC power supply.

Warning **The DC power supply cord requires at least a 14 AWG wire (maximum 10 AWG wire). The CSS 11503 draws a maximum of 18 amps.**

Warning **Use copper conductors only.**

Warning **Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.**

Warning **Before performing the DC installation procedure, ensure that power is removed from the DC circuit. To ensure that all power is off, locate the circuit breaker that services the DC circuit and switch it off.**

Warning **When you are installing or replacing the unit, the ground connection must always be made first and disconnected last.**

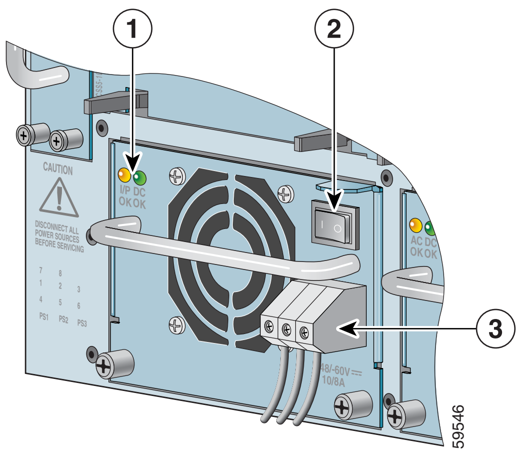
Warning **Only a DC power source that is isolated from AC mains with reinforced insulation, and that complies with the other safety extra-low voltage (SELV) requirements in UL1950, CSA 950 3rd Edition, EN 60950, and IEC950, can be connected to a Cisco 11506 system. This requirement ensures that in a catastrophic power source fault condition, hazardous voltages are not present on power terminals and connectors.**

Warning **This unit might have more than one power supply connection; all connections must be removed completely for you to completely remove power from the unit.**

To connect each CSS 11506 DC power supply to a power source:

1. On the power supply, ensure that the CSS power switch is in the **O** (off) position.
2. Locate the power supply DC terminal block, as shown in Figure 2-15.

Figure 2-15 Location of CSS 11506 DC Power Supply Connectors



1	Power supply LEDs	**3**	Terminal block (–, +, and ⏚)
2	Power switch		

3. Using a flat-head screwdriver, loosen the captive screws on the three DC connectors (labeled from left to right, –, +, and ⏚, respectively).

Warning **Before installing a wire, ensure that the polarity of the DC connections is correct. Reversed polarity can cause damage to the DC power supply and can create a dangerous shock hazard.**

Do not consolidate the end of a conductor by soft soldering prior to installation.

4. Install the wires into the appropriate connector. Make sure that the non-insulated part of each wire is 9 mm (0.35 inches) in length.

Warning **When installing the wires, always connect the ground wire first. When disconnecting the wires, always disconnect the ground wire last.**

5. Tighten the captive screws to 5 to 7 inch-pounds (0.6 to 0.8 Nm) of torque to secure the wires in the connectors. Ensure that the wires are held firmly in place.
6. Repeat steps 1 through 5 for each power supply.
7. Install the three sets of wires to the DC power source.

   For the proper power cable wiring between the CSS 11506 and DC power source, see Table 2-10.

Table 2-10 CSS 11506 to DC Power Source Cabling

CSS 11506	DC Power Source
⏚ (Ground)	⏚ (Ground)
+	+
–	–

Warning **The proper wiring sequence is ground to ground, positive to positive, and negative to negative. The ground wire should always be connected first and disconnected last.**

8. Switch on each circuit breaker that services each DC circuit.
9. To check the DC power connection, see the "Checking the DC Power Connection (CSS 11503 and CSS 11506)" section.

Checking the DC Power Connection (CSS 11503 and CSS 11506)

Follow these steps to verify that you have correctly connected DC power to the CSS 11503 or CSS 11506 chassis:

1. Turn on power to the DC circuit or circuits.
2. Use a voltmeter to check the voltage at the terminal block on the power supply. Connect the voltmeter's positive contact to the positive (+) terminal on the CSS power supply terminal block. Connect the voltmeter's negative contact to the negative (–) terminal on the CSS power supply terminal block. If the power is wired correctly, the voltmeter registers approximately +48VDC to +56VDC (or battery float voltage).

Warning **Do not allow the test probes of the voltmeter to touch each other while they are touching the power terminals. This is an ENERGY HAZARD to you, to the voltmeter, and to the wires connecting the CSS to its power source.**

3. To power on the CSS, see the "Powering Up the CSS" section.

Powering Up the CSS

To power up a CSS:

- On an AC CSS, toggle the power switch to the **1** (on) position.
  - See Figure 2-11 for the location of the CSS 11501 AC power switch.
  - See Figure 2-12 for the location of the CSS 11503 AC power switch.
  - See Figure 2-14 for the location of the CSS 11506 AC power switch for each power supply. Power on all of the supplies in the CSS. The AC OK and DC OK LEDs light up on each power supply. If either LED remains unlit, see the "Troubleshooting the CSS Power Supply" section later in this chapter.

- For a DC CSS, switch on the applicable circuit breakers for the power source. Then on the CSS, toggle the power switch to the **1** (on) position.
  - See Figure 2-13 for the location of the CSS 11503 DC power switch.
  - See Figure 2-15 for the location of the CSS 11506 DC power switch for each power supply. Power on all of the supplies in the CSS. The I/P OK and DC OK LEDs light up on each power supply. If either LED remains unlit, see the "Troubleshooting the CSS Power Supply" section later in this chapter.

The CSS starts the boot process. For information concerning the boot process on the Cisco 11500 series CSS, refer to the *Cisco Content Services Switch Getting Started Guide*.

Powering Down the CSS

To shut down the CSS gracefully and avoid introducing lost or fragmented files, always use the **shutdown** command prior to removing power from the CSS.

For example:

```
(config-boot)# shutdown
```

Once the CSS shuts down all processes, you can remove power from the CSS.

Troubleshooting the CSS Hardware Components

This section provides general troubleshooting information for the CSS components. It includes the following sections:

- Troubleshooting the CSS 11501
- Troubleshooting the CSS Modules
- Troubleshooting the Console Interface
- Troubleshooting the CSS Power Supply
- Troubleshooting the CSS Fans

Information in this section applies to the CSS 11501, CSS 11503, and CSS 11506, except where noted.

Troubleshooting the CSS 11501

CSS 11501 status is indicated by the Status LED on the front panel. For information about the CSS 11501 LEDs, see the "Cabling the CSS 11501"section earlier in this chapter.

Table 2-11 provides suggestions for correcting problems that may occur with the CSS 11501.

Table 2-11 Troubleshooting the CSS 11501

Symptom	Recommended Action
At boot up, the following message appears: `CHMGR: Slot` *`slot/subslot`* `had diagnostic failures - NOT STARTING UP`	When there is a failure on a CSS 11501 component, the CSS 11501 attempts the boot process three times. If the boot is unsuccessful, the CSS generates a log message and saves it in the boot.log file. Obtain technical assistance. Refer to "Preface". For information on log files, refer to the *Cisco Content Services Switch Administration Guide*.

Table 2-11 Troubleshooting the CSS 11501 (continued)

Symptom	Recommended Action
During normal CSS operation, the following message appears: `Temperature has reached x celsius for slot number`	Check the six fans in the chassis. The CSS 11501 is running at a temperature that is too high, as indicated by the *x* variable. When a fan failure occurs, obtain technical assistance.
You cannot access log or archive files on the CSS disk but traffic is still passed in and out of the CSS.	Replace the disk containing the files. Remove the disk and install the replacement in the CSS 11501. Refer to the reference sheet that comes with the replacement disk. After you install the disk in the CSS, you must wait 10 seconds before you can reseat or remove it. If the replacement disk does not have the same software version that the CSS is running, the CSS 11501 will not initialize the disk. You must reboot the CSS and configure a primary boot record. You can select the CSS software currently on the disk or instruct the CSS where to locate the CSS software ADI file to install on the disk. If you archived an offline version of your CSS running-config file, copy it back onto the CSS.

Troubleshooting the CSS Modules

CSS 11503 and CSS 11506 module status is indicated by the Status LED on the module front panel. For information about the module LEDs, see the "Cabling the CSS 11503 and CSS 11506 Modules" section earlier in this chapter.

Table 2-12 provides suggestions for correcting problems that may occur with the modules in the CSS 11503 and CSS 11506.

Caution Always power down the CSS prior to removing or installing a module.

Note As implemented in WebNS 5.10 and greater, when a CSS module fails during normal operations, the CSS reboots.

Table 2-12 Troubleshooting the CSS Modules

Symptom	Recommended Action
At boot up, the following message appears: `CHMGR: Slot slot/subslot had diagnostic failures - NOT STARTING UP`	1. Power down the CSS. 2. Reseat the module in its slot. 3. Power up the CSS to boot the module. If reseating the module does not correct the failure, replace the module. Refer to the reference sheet that comes with the replacement module.
During normal CSS operation, the following message appears and then, the CSS reboots: `ONDM: LifeTick for Sub-Module in slot/sub-slot - slot/subslot failed, resetting..`	If the module is not functioning, the left Status LED will be Red and blinking slowly. If it is an FEM, all of its Link and Duplex LEDs will blink synchronously. When the CSS reboots, the Status LED is off. Use the **show chassis** command to verify the state of the module. 1. Replace the module. Refer to the reference sheet that comes with the replacement module. 2. Power up the CSS to boot the module.
During normal CSS operation, the following message appears and then, the CSS reboots: `ONDM: Port C Path Failure %s, turning off Focus-C Port.`	The Switch Module in slot 1 failed. 1. Power down the CSS. 2. Remove and replace the module. Refer to the reference sheet that comes with the replacement module. 3. Reboot the CSS to boot the module.

Table 2-12 Troubleshooting the CSS Modules (continued)

Symptom	Recommended Action
During normal CSS operation, the following message appears and then, the CSS reboots: `ONDM: Port D Path Failure %s, turning off Focus-D Port.`	The Switch Module in slot 2 failed. 1. Power down the CSS. 2. Remove and replace the module. Refer to the reference sheet that comes with the replacement module. 3. Reboot the CSS to boot the module.
During normal CSS operation, the following message appears and then, the CSS reboots: `ONDM: Both Port C and Port D Focus Connect paths have failed.`	The Switch Modules in slot 1 and 2 failed. 1. Power down the CSS. 2. Remove and replace the modules. Refer to the reference sheet that comes with the modules. 3. Reboot the CSS to boot the modules.
During normal CSS operation, the following message appears: `Temperature has reached` *`x`* `celsius for slot` *`number`*	Check the fans in the chassis. The module in the designated slot *number* is running a temperature that is too high, indicated by the *x* variable. • For a CSS 11503, replace the chassis. • For a CSS 11506, replace the fan module. Refer to the reference sheet that comes with the replacement module.

Table 2-12 Troubleshooting the CSS Modules (continued)

Symptom	Recommended Action
You cannot access log or archive files on the CSS disk but traffic is still passed in and out of the CSS.	Replace the disk containing the files. Remove the disk and install the replacement in the SCM. Refer to the reference sheet that comes with the replacement disk. After you install the disk in the SCM, you must wait 10 seconds before you can reseat or remove it. If the replacement disk does not have the same software version that the CSS is running, the SCM will not initialize the disk. You must reboot the CSS and configure a primary boot record. You can select the CSS software currently on the disk or instruct the CSS where to locate the CSS software ADI file to install on the disk. If you archived an offline version of your CSS running-config file, copy it back onto the CSS.

Troubleshooting the Console Interface

Table 2-13 lists common communications problems that may exist between the CSS and a console. Ensure the console settings are configured to:

- Baud Rate - 9600
- Data Bits - 8
- Parity - none
- Stop Bits -1
- Flow Control - none

For information on console cable pinouts, refer to Appendix B, Cable Connector Pinouts.

Table 2-13 Troubleshooting the Console Interface

Possible Problem	Recommended Action
Nothing appears on the screen.	Ensure that the RS-232 cable is securely connected to the console port.
Characters appear on the screen, but are garbled.	Verify that the CSS and the console settings match with respect to baud rate, data bits, stop bits, and parity.
Abbreviated input is used, but pressing the tab key does not enter the command you want.	Ensure that you enter a sufficient number of characters for the CSS to distinguish between different commands and options.
Random characters are lost.	Set the flow command on the console to XON/XOFF.

Troubleshooting the CSS Power Supply

The following sections discuss:

- Troubleshooting the CSS 11501 Power Supply
- Troubleshooting the CSS 11503 Power Supply
- Troubleshooting the CSS 11506 Power Supply

Troubleshooting the CSS 11501 Power Supply

The CSS 11501 has one power supply as part of its chassis. When you power on the CSS, the indications of a successful power up are that it boots properly and become operational, and displays the following log message:

```
CHMGR: All power supplies are present (1).
```

Note This message is displayed only if the logging level is set to the Info-6 or Debug-7 level.

If you power on the CSS and it does not boot as indicated by the Status LEDs, either:

- There is no power to the power supply. Ensure that the CSS 11501 has power. Check the power switch, power cord, and power source.
- The power supply failed, obtain technical assistance.

Troubleshooting the CSS 11503 Power Supply

The CSS 11503 has one power supply as part of its chassis. When you power on the CSS, the indications of a successful power up are that its modules boot and become operational, and the following log message appears:

```
CHMGR: All power supplies are present (1).
```

Note This message is displayed only if the logging level is set to the Info-6 or Debug-7 level.

If you power on the CSS and its modules do not boot as indicated by their Status LEDs, either:

- There is no power to the power supply. Ensure that the CSS has power. Check the power switch, power cord, and power source.
- The power supply failed. You must replace the CSS chassis.

Troubleshooting the CSS 11506 Power Supply

If the CSS 11506 power supplies power on successfully and the CSS completes the boot process, the following message appears:

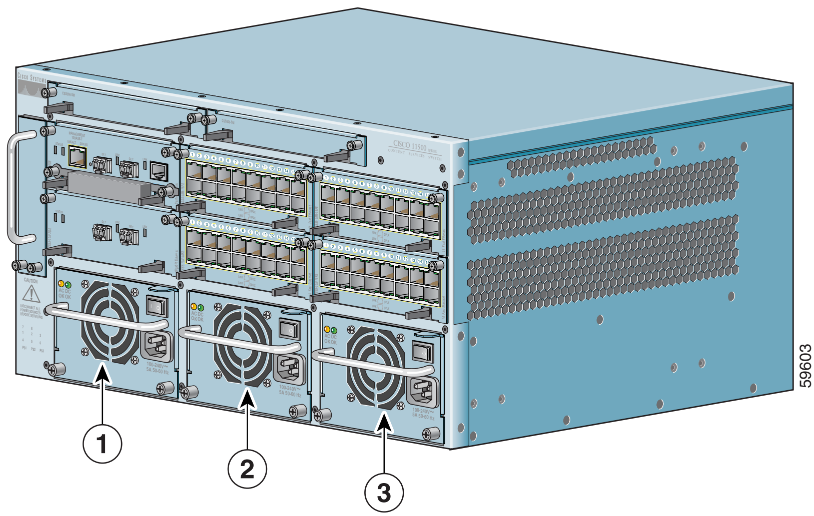
```
CHMGR: All power supplies are present (3).
```

Note This message is displayed only if the logging level is set to the Info-6 or Debug-7 level.

A CSS 11506 can contain a maximum of three power supplies, but it requires two functioning power supplies to guarantee service.

Figure 2-16 shows the location of the power supplies.

Figure 2-16 Location of the CSS 11506 Power Supplies



1	Power supply 1	**3**	Power supply 3
2	Power supply 2		

If the CSS 11506 contains less than three power supplies, a power supply is powered off, or a power supply module failed, the CSS displays the following messages:

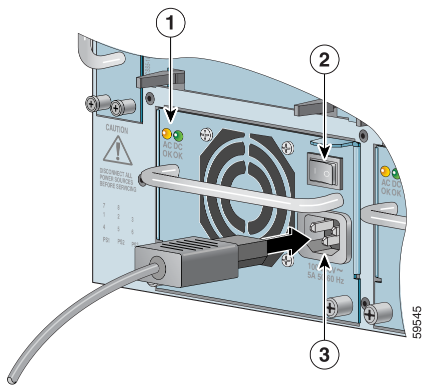
```
CHMGR: Missing backup power supply.
CHMGR: Cannot locate power supply: PSnumber.
```

The PS*number* variable indicates which power supply cannot be found or has failed.

When this message occurs, view the LEDs on the power supply.

Figure 2-17 shows the AC power supply LEDs. These LEDs indicate the power status of the supply.

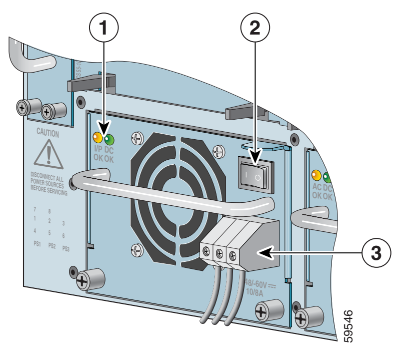
Figure 2-17 CSS 11506 AC Power Supply LEDs



1	Power Supply LEDs: AC OK and DC OK	**3**	AC connector
2	Power switch		

Figure 2-18 shows the DC power supply LEDs.

Figure 2-18 CSS 11506 DC Power Supply LEDs



1	Power Supply LEDs: I/P OK and DC OK	**3**	Terminal block
2	Power switch		

Table 2-14 describes these LEDs and provide suggestions for correcting problems.

Table 2-14 LEDs of the CSS 11506 Power Supply

LED State			
AC OK or **I/P OK (DC power supply)**	**DC OK**	**Possible Problem**	**Recommended Action**
On	On	There is no problem with the power source and the power supply.	Not applicable.
Off	Off	There is no power to the power supply.	Ensure the supply has power. Check the power switch, power cord, and power source.
On	Off	The power supply failed.	Remove and replace the power supply. Refer to the reference sheet that comes with the replacement supply. After you install the power supply, the CSS automatically brings the power supply into service.

Troubleshooting the CSS Fans

The following sections discuss:

- Troubleshooting the CSS 11501 Chassis Fans
- Troubleshooting the CSS 11503 Chassis Fans
- Troubleshooting the CSS 11506 Fan Module

Troubleshooting the CSS 11501 Chassis Fans

The CSS 11501 has six fans. When the CSS starts up and the fans are operational, the following message appears:

```
CHMGR: All fans are present (6).
```

Note This message is displayed only if the logging level is set to the Info-6 or Debug-7 level.

If a fan fails when the CSS 11501 starts up, or fails during its normal operation, the following message appears:

```
CHMGR: Missing fans. Expected 6. Found number.
```

The *number* variable indicates the total number of functioning fans. If the CSS 11501 starts to overheat, the following message appears:

```
Temperature has reached x celsius for slot number
```

The *x* variable indicates the temperature of the CSS 11501.

When a fan failure occurs, obtain technical assistance.

Troubleshooting the CSS 11503 Chassis Fans

The CSS 11503 has four fans, three for cooling the modules and one for the power supply. When the CSS starts up and fans are operational, the following message appears:

```
CHMGR: All fans are present (4).
```

> **Note** This message is displayed only if the logging level is set to the Info-6 or Debug-7 level.

If a fan fails when the CSS starts up, or fails during its normal operation, the following message appears:

```
CHMGR: Missing fans. Expected 4. Found number.
```

The *number* variable indicates the total number of functioning fans. If the modules start to overheat in the chassis, the following message appears:

```
Temperature has reached x celsius for slot number
```

The *x* variable indicates the temperature of the module. The module in the designated slot *number* is running a temperature that is too high.

If the power supply fan fails, the following message appears:

```
CHMGR: Power Supply Fan Failure.
```

When a fan failure occurs, you must replace the CSS chassis.

Troubleshooting the CSS 11506 Fan Module

The CSS 11506 has three fans in a single fan module. When the CSS starts up and fans are operational, the following message appears:

```
CHMGR: All fans are present (3).
```

Note This message is displayed only if the logging level is set to the Info-6 or Debug-7 level.

If a fan fails when the CSS starts up, or fails during its normal operation, the following message appears:

```
CHMGR: Missing fans. Expected 3. Found number.
```

The *number* variable indicates the total number of functioning fans.

If the modules start to overheat in the chassis, the following message appears:

```
Temperature has reached x celsius for slot number
```

The *x* variable indicates the temperature of the module. The module in the designated slot *number* is running a temperature that is too high.

When a fan failure occurs, you must replace the fan module to prevent the CSS modules from overheating.



Specifications

This appendix contains the following sections that list specifications for the CSS 11501, CSS 11503, and CSS 11506:

- Electrical Specifications
- Environmental Specifications
- Physical Specifications
- CSS 11501 Bandwidth and Memory Specifications
- CSS 11503 and CSS 11506 Module Specifications
- Disk Specifications
- Supported Standards

Electrical Specifications

Table A-1 describes the CSS 11501, CSS 11503, and CSS 11506 AC electrical specifications. The CSS 11501, CSS 11503, and CSS 11506 AC power supplies autosense for voltage and frequency.

Table A-1 AC Electrical Specifications

AC Specification	CSS 11501	CSS 11503	CSS 11506
Input Voltage AC	100 to 240 VAC 50 to 60 Hz	100 to 240 VAC 50 to 60 Hz	100 to 240 VAC 50 to 60 Hz
Current AC (max@ 100 VAC)	1.6 Amps	5 Amps	9 Amps
Power Consumption (maximum)	150VA	430VA	860VA
Heat Dissipation	512 BTU/hr	1468 BTU/hr	2936 BTU/hr

Table A-2 describes the CSS 11503 and CSS 11506 DC electrical specifications.

Table A-2 DC Electrical Specifications

DC Specification	CSS 11503	CSS 11506
Voltage DC	-48.0 to -60.0 VDC	-48.0 to -60.0 VDC
Current DC (maximum)	9 Amps	18 Amps
Power Consumption (maximum)	430 VA	860 VA
Heat Dissipation	1468 BTU/hr	2936 BTU/hr

Environmental Specifications

Table A-3 describes the CSS 11501, CSS 11503, and CSS 11506 environmental specifications.

Table A-3 Environmental Specifications

Specification	Operating	Non-operating
Temperature	32° to 104°F (0° to 40°C)	-4° to 149°F (-20° to 64°C)
Humidity	10 to 90% (non-condensing)	Up to 95% (non-condensing)
Altitude	0 to 10,000 ft. (0 to 3,000 m)	0 to 15,000 ft. (0 to 4750 m)
Shock	21 inch/sec^2 (0.53 m/sec^2), half sine	20 G, 52 inch/sec^2 (1.32 m/sec^2), trapezoidal pulse
Vibration	0.35 Grms from 3 to 500 Hz	1.0 Grms from 3 to 500 Hz
Acoustic Noise	70 dBa, maximum	Not applicable

Note G is the unit of acceleration due to gravity, where 1 G equals 32.17 ft/sec^2 (9.81 m/sec^2).

Note Grms is the root mean square value of acceleration.

Physical Specifications

Table A-4 describes the CSS 11501, CSS 11503, and CSS 11506 physical specifications.

Table A-4 Physical Specifications

Specification	CSS 11501	CSS 11503	CSS 11506
Chassis Dimensions (H x W x D)	1.72” x 17.29” x 18.1”	3.5” x 17.25” x 18.5”	8.25” x 17.25” x 14”
Chassis Shipping Weight	21.5 lbs. (9.77 kg)	42.85 lbs. (19.44 kg) (base system containing one SCM and two I/O modules plus accessory box)	67.65 lbs. (30.69 kg) (base system containing two power supplies, one SCM, five I/O modules, and mounting brackets plus accessory box)
Chassis Weight Fully Configured	18.0 lbs.	33.3 lbs. (base system containing one SCM and two I/O modules)	57.7 lbs. (base system containing two power supplies, one SCM, and five I/O modules)

CSS 11501 Bandwidth and Memory Specifications

Table A-5 describes the CSS 11501 switch bandwidth and memory specifications.

Table A-5 CSS 11501 Specifications

Specification	Description
Switch Bandwidth	6 Gbps Two full-duplex 1.6 Gbps pathways into a full-meshed switch fabric
SCM Memory (RDRAM)	288 MB (256 MB of usable memory)
SSL Integrated Module Memory	512 MB SDRAM

CSS 11503 and CSS 11506 Module Specifications

Table A-6 describes the CSS 11503 and CSS 11506 module specifications.

Table A-6 CSS 11503 and CSS 11506 Module Specifications

Specification	CSS 11503	CSS 11506
Slot Configuration	2 slots for I/O modules with one SCM	5 slots for I/O modules with one SCM 4 slots for I/O modules with two SCMs (1 active, 1 passive)
Switch Bandwidth	20 Gbps Each slot has two full-duplex 1.6 Gbps pathways into a full-meshed switch fabric	40 Gbps Each slot has two full-duplex 1.6 Gbps pathways into a full-meshed switch fabric
SCM Memory (RDRAM)	288 MB (256 MB of usable memory)	288 MB (256 MB of usable memory)
IOM Memory (RDRAM)	144 MB default or 288 MB optional (128 MB or 256 MB of usable memory, respectively)	144 MB default or 288 MB optional (128 MB or 256 MB of usable memory, respectively)
SSL Module Memory	512 MB SDRAM	512 MB SDRAM

Disk Specifications

Table A-7 defines the specifications for each disk in the CSS 11501 chassis or in a CSS 11503 or CSS 11506 SCM.

Table A-7 Disk Specifications

Specification	Hard Disk	Flash Disk
Capacity (minimum)	Refer to data sheet.	Refer to data sheet.
Interface	PCMCIA ATA	PCMCIA ATA

Supported Standards

The CSS supports the following standards:

- Transport
- Network
- Routing
- Gateway
- Application
- Network Utilities
- Network Management

Transport

The CSS supports the following transport standards:

- TCP
- UDP

Network

The CSS supports the following network standards:

- Internet Protocol (IP)
- ICMP
- Address Resolution Protocol (ARP)
- Inverse ARP

Routing

The CSS supports the following routing standards:

- RIP I
- RIP II
- OSPF Version 2

Gateway

The CSS supports Network Address Translation (NAT), per RFC 1631 gateway standards

Application

The CSS supports the following application standards:

- HTTP 1.0, HTTP 1.1
- TELNET
- FTP, TFTP
- RTP

Network Utilities

The CSS supports the following network utility standards:

- DNS Client
- RADIUS Client
- TACACS+ Client
- HTTP Client
- FTP Daemon
- SNTP

Network Management

The CSS supports the following network management standards:

- SNMP v1
- SNMP v2c



Cable Connector Pinouts

This appendix contains the following sections that list pinouts for the connectors used with the CSS 11501, CSS 11503, and CSS 11506:

- RJ-45 Fast Ethernet Connector Pinouts
- RJ-45 RS-232 Console Port Pinouts
- RJ-45 Management Connector Pinouts
- RJ-45 1000BASE-T GBIC Connector Pinouts

RJ-45 Fast Ethernet Connector Pinouts

Table B-1 lists the pinouts for the RJ-45 Fast Ethernet connectors on the CSS 11501 front panel and the 8- and 16-port Fast Ethernet Modules in the CSS 11503 or CSS 11506 chassis. The 10/100 Mb ports support autocrossover, allowing a connection to be made to any device using an Ethernet-type cable.

Table B-1 RJ-45 Fast Ethernet Connector Pinouts

Signal Name	RJ-45 Fast Ethernet Pin Numbers
RX +	1
RX -	2
TX +	3
Unconnected	4
Unconnected	5
TX -	6
Unconnected	7
Unconnected	8

RJ-45 RS-232 Console Port Pinouts

Table B-2 lists the RJ-45 RS-232 Serial connector pinouts for the Console port on the CSS 11501 front panel and the CSS 11503 or CSS 11506 Switch Control Module (SCM).

Table B-2 RJ-45 RS-232 Serial Connector Pinouts for the Console Port

Signal Name	Pin Number
RTS	1
DTR	2
TXD	3
GND	4
GND	5
RXD	6
DSR	7
CTS	8

The following sections provide the pinouts for:

- Connecting the Console Port to a PC
- Connecting the Console Port to a Terminal
- Connecting the Console Port to a Modem

Connecting the Console Port to a PC

To connect the console port to a PC running terminal emulation software, use an RJ-45 to RJ-45 rollover cable and an RJ-45 to DB-9 female DTE adapter labeled Terminal. The DTE adapter is part of the accessory kit.

Table B-3 lists the signals of the console port and PC console device, and the pinouts of the rollover cable and the DTE adapter interfaces.

Table B-3 Console Port to PC Signals and Pinouts

Console Port Signal	Console Port to RJ-45 Rollover Cable Pinouts	RJ-45 Rollover Cable to RJ-45 DTE Adapter Pinouts	DB-9 DTE Adapter to PC Console Device Pinouts	PC Console Device Signal
RTS	1	8	8	CTS
DTR	2	7	6	DSR
TXD	3	6	2	RXD
GND	4	5	5	GND
GND	5	4	5	GND
RXD	6	3	3	TXD
DSR	7	3	4	DTR
CTS	8	1	7	RTS

Connecting the Console Port to a Terminal

To connect the console port to a terminal, use an RJ-45 to RJ-45 rollover cable and an RJ-45 to DB-25 female DTE adapter. The DTE adapter is part of the accessory kit.

Table B-4 lists the signals of the console port and terminal device, and the pinouts of the rollover cable and the DTE adapter interfaces.

Table B-4 Console Port to Terminal Signals and Pinouts

Console Port Signal	Console Port to RJ-45 Rollover Cable Pinouts	RJ-45 Rollover Cable to RJ-45 DTE Adapter Pinouts	DB-25 DTE Adapter to Terminal Pinouts	Terminal Device Signal
RTS	1	8	5	CTS
DTR	2	7	6	DSR
TXD	3	6	3	RXD
GND	4	5	7	GND
GND	5	4	7	GND
RXD	6	3	2	TXD
DSR	7	3	20	DTR
CTS	8	1	4	RTS

Connecting the Console Port to a Modem

To connect the console port to a terminal, use an RJ-45 to RJ-45 rollover cable and an RJ-45 to DB-25 male DCE adapter.

Table B-5 lists the signals of the console port and modem device, and the pinouts of the rollover cable and the DCE adapter interfaces.

Table B-5 Console Port to Modem Signals and Pinouts

Console Port Signal	Console Port to RJ-45 Rollover Cable Pinouts	RJ-45 Rollover Cable to RJ-45 DCE Adapter Pinouts	DB-25 DCE Adapter to Modem Pinouts	Modem Device Signal
RTS	1	8	4	RTS
DTR	2	7	20	DTR
TXD	3	6	3	TXD
GND	4	5	7	GND
GND	5	4	7	GND
RXD	6	3	2	RXD
DSR	7	3	8	DCD
CTS	8	1	5	CTS

RJ-45 Management Connector Pinouts

Table B-6 lists the RJ-45 10-MB Ethernet Management connector pinouts on the CSS 11501 front panel and the CSS 11503 or CSS 11506 SCM.

Table B-6 RJ-45 Management Connector Pinouts

Signal Name	Pin Number
TX +	1
TX -	2
RX +	3
Unconnected	4
Unconnected	5
RX -	6
Unconnected	7
Unconnected	8

RJ-45 1000BASE-T GBIC Connector Pinouts

Table B-7 lists the RJ-45 1000BASE-T GBIC connector pinouts.

Table B-7 RJ-45 1000BASE-T GBIC Connector Pinouts

Signal Name	Pin Number
TP0 +	1
TP0 -	2
TP1+	3
TP2+	4
TP2-	5
TP1-	6
TP3+	7
TP3-	8

The 1000BASE-T SFP GBIC on a CSS supports 1000 Mbps full-duplex operation only and uses standard four twisted-pair, Category 5e cable at lengths up to 328.08 ft. (100 m).

Figure B-1 and Figure B-2 show the schematics of four twisted-pair straight-through and crossover cables for the 1000BASE-T GBIC module port. When connecting the CSS to servers, workstations, and routers, use the straight-through cable. When connecting the CSS to switches and repeaters, use the crossover cable.

Figure B-1 Four Twisted-Pair Straight-Through Cable Schematic for the CSS 1000BASE-T GBIC Module Port

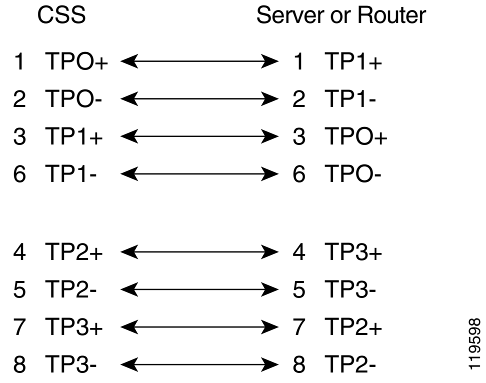
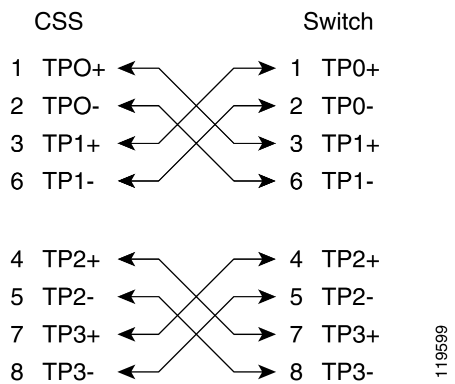


Figure B-2 Four Twisted-Pair Crossover Cable Schematic for the CSS 1000BASE-T GBIC Module Port





Connecting a Modem to the CSS

This appendix explains how to configure a dial-up modem and connect it to the console port on the CSS. Connecting a modem to the CSS allows you to remotely perform the same CSS console operations as you would locally. The CSS supports the following modems:

- 3Com (US Robotics) Courier Model 3453 Modem
- 3Com OfficeConnect Model 3294 Modem
- 3Com (US Robotics) Sportster Model 5686 Modem
- MultiTech Model MT5634ZBA Modem

This appendix includes the following sections:

- Configuring a Modem
- Cabling a Modem to the CSS

Configuring a Modem

You must configure the modem before you can connect it to the CSS. You can connect the modem to a terminal or a PC using a terminal emulation program, such as Hyperterm. If you connect the modem to the COM port on a PC, you need the following cable and connectors (see Appendix B, Cable Connector Pinouts):

- RJ-45-to-RJ-45 rolled cable
- RJ-45-to-DB-25 modem adapter
- DB-9-to-RJ-45 terminal adapter

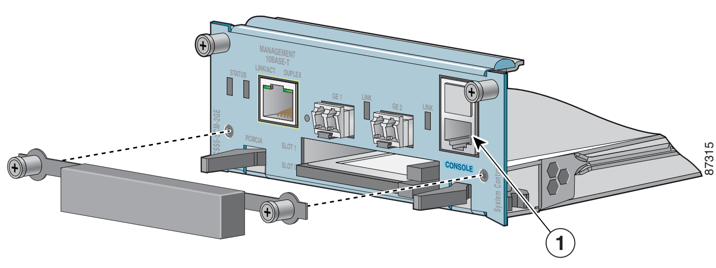
Then, you configure the modem by entering commands from the Attention (AT) command set and, if applicable, setting the configuration switches on the modem. Although the process to configure the modem may vary from one modem to another, configure your modem so that its resulting behavior is as follows:

- Answers a call on the first ring
- Disables both hardware and software flow control mechanisms
- Ignores modem control signals DTR and RTS
- Suppresses echoing of command mode input
- Disables recognition of AT commands

Cabling a Modem to the CSS

After you configure the modem, unplug the flat rolled RJ-45-to-RJ-45 cable from the terminal adapter on the PC and connect the cable to the SCM console port of the CSS. On a CSS 11503 or CSS 11506, the console port is on the SCM (see Figure C-1). If you have two SCMs installed in the CSS, make sure that you connect the cable to the active SCM.

Figure C-1 Switch Control Module Console Connector



1	Console connector

Make sure that the settings on the remote console match the CSS default settings specified in Table C-1.

Table C-1 CSS Console Port Default Settings

Parameters	Default Settings
Baud	9600
Data Bits	8
Parity	None
Stop Bits	1
Terminal Type	VT100/ANSI
Flow Control	None

Note When you remotely log in to the CSS through a modem, make sure that you log out before disconnecting from the session. Use the **idle timeout** *minutes* command to set the maximum amount of time that the console session can be idle on the CSS before the CSS logs it out. By default, the timeout is disabled.



APPENDIX D

Regulatory Compliance and Safety Information for the Cisco 11500 Series Content Services Switch

This appendix provides international agency compliance information applicable to the Cisco Content Services Switches (CSS) 11501, 11503, and 11506.

This appendix also provides translations of safety warnings. Use the information in this appendix in conjunction with the information contained in the CSS documentation set, listed in the "Related Documentation" section of the Preface.

This appendix includes the following sections:

Agency Approvals

Table D-1 lists the regulatory approval requirements for the Cisco 11500 Series CSSs.

Table D-1 Regulatory Approval Requirements

Regulatory Requirement Category	Approval Agency and Requirement
Electromagnetic Compatibility (Emissions)	AS/NZS 3548:1995, Class A or CISPR 22:2002
	CISPR 22 Class A, 1997
	EN55022 or CISPR 22 Class A, Korean Criteria for in country testing
	FCC, 47CFR15 Sub Part B, Class A
	EN55022 Class A, 1998
	VCCI V-3/2001.4, Class A
	CNS13438 (Taiwan)
	ICES-003:1998, Class A
	EN61000-3-2:2000, Harmonic Current Emissions
	EN61000-3-3:1995, Power Line Flicker
Electromagnetic Compatibility (Immunity)	EN55024:1998 [Reference]
	The equipment complies with the requirements of the following specifications as defined in the reference:
	EN61000-4-2, ESD
	EN61000-4-3, Radiated Immunity
	EN61000-4-4, Electrical Fast Transients
	EN61000-4-5, Surges
	EN61000-4-6, Conducted Immunity
	EN61000-4-11, Dips, Sags, and Voltage Interruptions
	EN50082-1:1992, Generic Immunity Requirements - Light Industrial

FCC Class A Compliance Notice (United States)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

You can determine whether your equipment is causing interference by turning it off. If the interference stops, it was probably caused by the Cisco equipment or one of its peripheral devices. If the equipment causes interference to radio or television reception, try to correct the interference by using one or more of the following measures:

- Turn the television or radio antenna until the interference stops.
- Move the equipment to one side or the other of the television or radio.
- Move the equipment farther away from the television or radio.
- Plug the equipment into an outlet that is on a different circuit from the television or radio. (That is, make certain the equipment and the television or radio are on circuits controlled by different circuit breakers or fuses.)

Modifying the equipment without Cisco's authorization may result in the equipment no longer complying with FCC requirements for Class A or Class B digital devices. In that event, your right to use the equipment may be limited by FCC regulations, and you may be required to correct any interference to radio or television communications at your own expense.

FCC Compliance Information Statement (United States)

Cisco 11500 Series Content Services Switches (CSS 11503 and CSS 11506)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Note: equipment must be installed and operated using the relevant manuals and must only be installed with the correct cables and connectors. Cisco Systems Inc. is not responsible for any radio or television interference caused by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC rules. Operation I subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Responsible party: Corporate Compliance Manager, Cisco Systems Inc.

Cisco Systems Inc.
170 West Tasman Drive
San Jose, CA 95134
USA

+408 526-7208

ICES-003 Class A Compliance Notice (Canada)

English Statement of Compliance

This class A digital apparatus complies with Canadian ICES-003.

French Statement of Compliance

Cet appareil numerique de la classe A est conforme a la norme NMB-003 du Canada

Europe (EU)

This Apparatus complies with EN55022 Class A and EN55024/ EN50082-1 standard requirements in Europe.

Declaration of Conformity with Regard to the Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC

English:	**This equipment is in compliance with the essential requirements and other provisions of Directives 73/23/EEC and 89/336/EEC as amended by Directive 93/68/EEC.**
Dansk:	**Dette udstyr er i overensstemmelse med de ufravigelige hensyn og andre bestemmelser i direktiv 73/23/EEC og 89/336/EEC som ændred i direktiv 93/68/EEC.**
Deutsch:	**Dieses Gerät entspricht den wesentlichen Anforderungen und weiteren Bestimmungen der Richtlinien 73/23/EWG und 89/336/EWG mit der Ergänzung durch Richtlinie 93/68/EWG.**
Español:	**Este equipo cumple con los requisitos esenciales y otras disposiciones de las Directrices 73/23/EEC y 89/336/EEC de acuerdo a las modificaciones de la Directriz 93/68/EEC.**
Έλληνας:	Αυτός ο εξοπλισμός συμμορφώνεται με τις ουσιώδεις απαιτήσεις και τις λοιπές διατάξεις των Οδηγιών 73/23/ΕΟΚ και 89/336/ΕΟΚ, όπως τροποποιήθηκαν με την Οδηγία 93/68/ΕΟΚ.
Français:	**Cet appareil remplit les principales conditions requises et autres dispositions des Directives 73/23/EEC et 89/336/EEC, modifiées par la Directive 93/68/EEC.**
Íslenska:	**Þessir búnaður samrýmist lögboðnum kröfum og öðrum ákvæðum tilskipana 73/23/EBE og 89/336/EBE, með breytingum skv. tilskipun 93/68/EBE.**
Italiano:	**Questa apparecchiatura è conforme ai requisiti essenziali e altre disposizioni delle Direttive 73/23/EEC e 89/336/EEC modificate con la Direttiva 93/68/EEC.**
Nederlands:	**Deze apparatuur voldoet aan de belangrijkste eisen en andere voorzieningen van richtlijnen 73/23/EEC en 89/336/EEC zoals gewijzigd door richtlijn 93/68/EEC.**
Norsk:	**Dette utstyret samsvarer med de vesentligste kravene og andre regler i direktivene 73/23/EEC og 89/336/EEC samt i tilleggsdirektiv 93/68/EEC.**

Português: **Este equipamento satisfaz os requisitos essenciais e outras provisões das Directivas 73/23/EEC e 89/336/EEC, conforme amendados pela Directiva 93/68/EEC.**

Română Prin prezenta, noi Cisco Systems România SRL, declarăm pe propria răspundere că produsul de mai jos, îndeplineşte principalele cerinţe de conformitate cu Directiva Europeană 89/336/EEC, 73/23/EEC(R&TTE)

Cisco 11500 Series CSS

Suomalainen: **Tämä laite on direktiivien 73/23/ETY ja 89/336/ETY (kuten muutettu direktiivissä 93/68/ETY) keskeisten vaatimusten ja määräysten mukainen.**

Svenska: **Denna utrustning uppfyller de väsentliga kraven och andra villkor i direktiven 73/23/EEC och 89/336/EEC enligt ändringarna i direktiv 93/68/EEC.**

CISPR 22 Class A Warning

Warning **This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.**

VCCI Class A Warning

Warning **This is a Class A product based on the standard of the Voluntary Control Council for Interference by Information Technology Equipment (VCCI). If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, the user may be required to take corrective actions.**

Waarschuwing **Dit is een product van klasse A gebaseerd op de VCCI-norm (Voluntary Control Council for Interference by Information Technology Equipment). Indien deze apparatuur in een huishoudelijke omgeving wordt gebruikt, kan radiostoring optreden. Wanneer dit probleem zich voordoet, kan het nodig zijn dat het door de gebruiker wordt verholpen.**

Varoitus **Tämä on "Voluntary Control Council for Interference by Information Technology Equipment" (VCCI) -standardin mukaisesti luokan A laite. Jos tätä laitetta käytetään kotiympäristössä, se voi aiheuttaa radiohäiriöitä. Ongelmien esiintyessä käyttäjän on ehkä ryhdyttävä toimenpiteisiin tilanteen korjaamiseksi.**

Attention **Cet équipement est un produit de la Classe A basé sur les normes du VCCI (Voluntary Control Council for Interference by Information Technology Equipment). L'utilisation de cet équipement dans un environnement domestique risque d'entraîner des brouillages radio-électriques. En présence de tels brouillages, l'utilisateur sera peut-être amené à prendre des mesures correctives.**

Warnung **Dies ist laut Standard des Voluntary Control Council for Interference by Information Technology Equipment (VCCI) ein Produkt der Klasse A. Wenn dieses Gerät in einem häuslichen Umfeld gebaucht wird, können Radiostörungen auftreten. Sollte das der Fall sein, muß der Benutzer gegebenenfalls Gegenmaßnahmen ergreifen.**

Avvertenza **Il presente è un prodotto di Classe A ai sensi della norma del Voluntary Control Council for Interference by Information Technology Equipment (VCCI). Se questa apparecchiatura viene usata in ambito domestico, è possibile che ne derivino radiointerferenze. In questo caso, è possibile che all'utente venga richiesto di prendere le opportune misure correttive.**

Advarsel **Dette er et klasse A produkt basert på standard for Voluntary Control Council for Interference by Information Technology Equipment (VCCI). Hvis dette utstyret bruket i et hjemmemiljø, kan radioforstyrrelser eventuelt oppstå. Når denne type problemer finner sted, kan det bli nødvendig at brukeren må benytte seg av korrigerende handlinger.**

Aviso **Este é um produto de Classe A baseado na norma do Voluntary Control Council for Interference by Information Technology Equipment (Conselho de Controlo Voluntário para a Interferência por Equipamento de Tecnologia de Informação) (VCCI). Poderão ocorrer interferências de rádio, caso este equipamento seja utilizado num ambiente doméstico. Quando ocorrer tal problema, o utilizador poderá ter de tomar medidas correctivas.**

Advertencia **Este es un producto de Clase A basado en el estándar del Voluntary Control Council for Interference by Information Technology Equipment (VCCI). Si este equipo se usa en un entorno doméstico, puede provocar radiointerferencias. Si ocurren tales problemas, el usuario debe tomar medidas correctivas.**

Varning! **Detta är en klass A produkt enligt standarden som fastställts av Voluntary Control Council for Interference by Information Technology Equipment (VCCI). Om utrustningen används i hemmiljö kan den orsaka radiostörning. Om sådana problem uppstår kan användaren behöva vidta åtgärder som rättar till problemet.**

警告使用者 這是甲類資訊產品，在居住環境中使用時，可能會造成射頻干擾，
在這種情況下，使用者會被要求採取某些適當的對策。

警告 これは、情報処理装置等電波障害自主規制協議会（VCCI）の規定に基づくクラスA装置です。
この装置を家庭環境で使用すると、電波妨害を引き起こすことがあります。この場合には、
使用者が適切な対策を取るように要求されることがあります。

Class A Warning for Taiwan and Other Traditional Chinese Markets

Warning **This is a Class A Information Product, when used in residential environment, it may cause radio frequency interference, under such circumstances, the user may be requested to take appropriate countermeasures.**

警告 這是甲類資訊產品，在居住環境中使用時，可能會造成射頻干擾，
在這種情況下，使用者會被要求採取某些適當的對策。

Class A EMC Warning

Warning **This is a Class A Device and is registered for EMC requirements for industrial use. The seller or buyer should be aware of this. If this type was sold or purchased by mistake, it should be replaced with a residential-use type.**

주의 A급 기기 이 기기는 업무용으로 전자파 적합 등록을 한 기기이
오니 판매자 또는 사용자는 이 점을 주의하시기 바라며 만약
잘못 판매 또는 구입하였을 때에는 가정용으로 교환하시기 바랍니다.

Safety Requirements

This section identifies safety requirements with which Cisco Content Services Switches comply.

US

UL 60950 Third Edition - Safety of Information Technology Equipment.

Canada

CAN/CSA 22.2 No. 60950-00 Third Edition - Safety of Information Technology Equipment.

Europe

EN 60950 - Safety of Information Technology Equipment; incorporating Amendments 1, 2, 3, 4, and 11 with all National Deviations.

IEC 60950 Second Edition - Safety of Information Technology Equipment; incorporating Amendments 1, 2, 3, and 4.

Mexico

NOM-019-SCFI-1998, Safety of Data Processing Equipment.

Australia

ACA TS001 1997 Test Report and Statement of Compliance AS/NZS3260 incorporating Amendment 1, 2, 3, and 4.

Laser Safety

This section identifies laser safety requirements with which Cisco Content Services Switches comply.

US

21CFR 1040, Subchapter J

Europe

EN60825-1

EN60825-2

International

IEC60825-1

IEC60825-2

Translated Safety Warnings

This section repeats, in multiple languages, the warnings contained in this publication. In addition, this section contains translated warnings that can be used with other switch- or router-specific documents, such as those describing the individual field-replaceable units (FRUs) applicable to a particular switch or router.

Warning Definition

Warning **IMPORTANT SAFETY INSTRUCTIONS**

This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, be aware of the hazards involved with electrical circuitry and be familiar with standard practices for preventing accidents. Use the statement number provided at the end of each warning to locate its translation in the translated safety warnings that accompanied this device. Statement 1071

SAVE THESE INSTRUCTIONS

Waarschuwing **BELANGRIJKE VEILIGHEIDSINSTRUCTIES**

Dit waarschuwingssymbool betekent gevaar. U verkeert in een situatie die lichamelijk letsel kan veroorzaken. Voordat u aan enige apparatuur gaat werken, dient u zich bewust te zijn van de bij elektrische schakelingen betrokken risico's en dient u op de hoogte te zijn van de standaard praktijken om ongelukken te voorkomen. Gebruik het nummer van de verklaring onderaan de waarschuwing als u een vertaling van de waarschuwing die bij het apparaat wordt geleverd, wilt raadplegen.

BEWAAR DEZE INSTRUCTIES

Varoitus **TÄRKEITÄ TURVALLISUUSOHJEITA**

Tämä varoitusmerkki merkitsee vaaraa. Tilanne voi aiheuttaa ruumiillisia vammoja. Ennen kuin käsittelet laitteistoa, huomioi sähköpiirien käsittelemiseen liittyvät riskit ja tutustu onnettomuuksien yleisiin ehkäisytapoihin. Turvallisuusvaroitusten käännökset löytyvät laitteen mukana toimitettujen käännettyjen turvallisuusvaroitusten joukosta varoitusten lopussa näkyvien lausuntonumeroiden avulla.

SÄILYTÄ NÄMÄ OHJEET

Attention **IMPORTANTES INFORMATIONS DE SÉCURITÉ**

Ce symbole d'avertissement indique un danger. Vous vous trouvez dans une situation pouvant entraîner des blessures ou des dommages corporels. Avant de travailler sur un équipement, soyez conscient des dangers liés aux circuits électriques et familiarisez-vous avec les procédures couramment utilisées pour éviter les accidents. Pour prendre connaissance des traductions des avertissements figurant dans les consignes de sécurité traduites qui accompagnent cet appareil, référez-vous au numéro de l'instruction situé à la fin de chaque avertissement.

CONSERVEZ CES INFORMATIONS

Warnung **WICHTIGE SICHERHEITSHINWEISE**

Dieses Warnsymbol bedeutet Gefahr. Sie befinden sich in einer Situation, die zu Verletzungen führen kann. Machen Sie sich vor der Arbeit mit Geräten mit den Gefahren elektrischer Schaltungen und den üblichen Verfahren zur Vorbeugung vor Unfällen vertraut. Suchen Sie mit der am Ende jeder Warnung angegebenen Anweisungsnummer nach der jeweiligen Übersetzung in den übersetzten Sicherheitshinweisen, die zusammen mit diesem Gerät ausgeliefert wurden.

BEWAHREN SIE DIESE HINWEISE GUT AUF.

Avvertenza **IMPORTANTI ISTRUZIONI SULLA SICUREZZA**

Questo simbolo di avvertenza indica un pericolo. La situazione potrebbe causare infortuni alle persone. Prima di intervenire su qualsiasi apparecchiatura, occorre essere al corrente dei pericoli relativi ai circuiti elettrici e conoscere le procedure standard per la prevenzione di incidenti. Utilizzare il numero di istruzione presente alla fine di ciascuna avvertenza per individuare le traduzioni delle avvertenze riportate in questo documento.

CONSERVARE QUESTE ISTRUZIONI

Advarsel **VIKTIGE SIKKERHETSINSTRUKSJONER**

Dette advarselssymbolet betyr fare. Du er i en situasjon som kan føre til skade på person. Før du begynner å arbeide med noe av utstyret, må du være oppmerksom på farene forbundet med elektriske kretser, og kjenne til standardprosedyrer for å forhindre ulykker. Bruk nummeret i slutten av hver advarsel for å finne oversettelsen i de oversatte sikkerhetsadvarslene som fulgte med denne enheten.

TA VARE PÅ DISSE INSTRUKSJONENE

Aviso **INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você está em uma situação que poderá ser causadora de lesões corporais. Antes de iniciar a utilização de qualquer equipamento, tenha conhecimento dos perigos envolvidos no manuseio de circuitos elétricos e familiarize-se com as práticas habituais de prevenção de acidentes. Utilize o número da instrução fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham este dispositivo.

GUARDE ESTAS INSTRUÇÕES

¡Advertencia! **INSTRUCCIONES IMPORTANTES DE SEGURIDAD**

Este símbolo de aviso indica peligro. Existe riesgo para su integridad física. Antes de manipular cualquier equipo, considere los riesgos de la corriente eléctrica y familiarícese con los procedimientos estándar de prevención de accidentes. Al final de cada advertencia encontrará el número que le ayudará a encontrar el texto traducido en el apartado de traducciones que acompaña a este dispositivo.

GUARDE ESTAS INSTRUCCIONES

Varning! **VIKTIGA SÄKERHETSANVISNINGAR**

Denna varningssignal signalerar fara. Du befinner dig i en situation som kan leda till personskada. Innan du utför arbete på någon utrustning måste du vara medveten om farorna med elkretsar och känna till vanliga förfaranden för att förebygga olyckor. Använd det nummer som finns i slutet av varje varning för att hitta dess översättning i de översatta säkerhetsvarningar som medföljer denna anordning.

SPARA DESSA ANVISNINGAR

Figyelem **FONTOS BIZTONSÁGI ELOÍRÁSOK**

Ez a figyelmezeto jel veszélyre utal. Sérülésveszélyt rejto helyzetben van. Mielott bármely berendezésen munkát végezte, legyen figyelemmel az elektromos áramkörök okozta kockázatokra, és ismerkedjen meg a szokásos balesetvédelmi eljárásokkal. A kiadványban szereplo figyelmeztetések fordítása a készülékhez mellékelt biztonsági figyelmeztetések között található; a fordítás az egyes figyelmeztetések végén látható szám alapján kereshető meg.

ORIZZE MEG EZEKET AZ UTASÍTÁSOKAT!

Предупреждение **ВАЖНЫЕ ИНСТРУКЦИИ ПО СОБЛЮДЕНИЮ ТЕХНИКИ БЕЗОПАСНОСТИ**

Этот символ предупреждения обозначает опасность. То есть имеет место ситуация, в которой следует опасаться телесных повреждений. Перед эксплуатацией оборудования выясните, каким опасностям может подвергаться пользователь при использовании электрических цепей, и ознакомьтесь с правилами техники безопасности для предотвращения возможных несчастных случаев. Воспользуйтесь номером заявления, приведенным в конце каждого предупреждения, чтобы найти его переведенный вариант в переводе предупреждений по безопасности, прилагаемом к данному устройству.

СОХРАНИТЕ ЭТИ ИНСТРУКЦИИ

警告 重要的安全性说明

此警告符号代表危险。您正处于可能受到严重伤害的工作环境中。在您使用设备开始工作之前，必须充分意识到触电的危险，并熟练掌握防止事故发生的标准工作程序。请根据每项警告结尾提供的声明号码来找到此设备的安全性警告说明的翻译文本。

请保存这些安全性说明

警告 安全上の重要な注意事項

「危険」の意味です。人身事故を予防するための注意事項が記述されています。装置の取り扱い作業を行うときは、電気回路の危険性に注意し、一般的な事故防止策に留意してください。警告の各国語版は、各注意事項の番号を基に、装置に付属の「Translated Safety Warnings」を参照してください。

これらの注意事項を保管しておいてください。

주의 중요 안전 지침

이 경고 기호는 위험을 나타냅니다. 작업자가 신체 부상을 일으킬 수 있는 위험한 환경에 있습니다. 장비에 작업을 수행하기 전에 전기 회로와 관련된 위험을 숙지하고 표준 작업 관례를 숙지하여 사고를 방지하십시오. 각 경고의 마지막 부분에 있는 경고문 번호를 참조하여 이 장치와 함께 제공되는 번역된 안전 경고문에서 해당 번역문을 찾으십시오.

이 지시 사항을 보관하십시오.

Aviso **INSTRUÇÕES IMPORTANTES DE SEGURANÇA**

Este símbolo de aviso significa perigo. Você se encontra em uma situação em que há risco de lesões corporais. Antes de trabalhar com qualquer equipamento, esteja ciente dos riscos que envolvem os circuitos elétricos e familiarize-se com as práticas padrão de prevenção de acidentes. Use o número da declaração fornecido ao final de cada aviso para localizar sua tradução nos avisos de segurança traduzidos que acompanham o dispositivo.

GUARDE ESTAS INSTRUÇÕES

Advarsel **VIGTIGE SIKKERHEDSANVISNINGER**

Dette advarselssymbol betyder fare. Du befinder dig i en situation med risiko for legemesbeskadigelse. Før du begynder arbejde på udstyr, skal du være opmærksom på de involverede risici, der er ved elektriske kredsløb, og du skal sætte dig ind i standardprocedurer til undgåelse af ulykker. Brug erklæringsnummeret efter hver advarsel for at finde oversættelsen i de oversatte advarsler, der fulgte med denne enhed.

GEM DISSE ANVISNINGER

تحذير **إرشادات الأمان الهامة**

يوضح رمز التحذير هذا وجود خطر. وهذا يعني أنك متواجد في مكان قد ينتج عنه التعرض لإصابات. قبل بدء العمل، احذر مخاطر التعرض للصدمات الكهربائية وكن على علم بالإجراءات القياسية للحيلولة دون وقوع أي حوادث. استخدم رقم البيان الموجود في أخر كل تحذير لتحديد مكان ترجمته داخل تحذيرات الأمان المترجمة التي تأتي مع الجهاز. قم بحفظ هذه الإرشادات

Upozorenje **VAŽNE SIGURNOSNE NAPOMENE**

Ovaj simbol upozorenja predstavlja opasnost. Nalazite se u situaciji koja može prouzročiti tjelesne ozljede. Prije rada s bilo kojim uređajem, morate razumjeti opasnosti vezane uz električne sklopove, te biti upoznati sa standardnim načinima izbjegavanja nesreća. U prevedenim sigurnosnim upozorenjima, priloženima uz uređaj, možete prema broju koji se nalazi uz pojedino upozorenje pronaći i njegov prijevod.

SAČUVAJTE OVE UPUTE

Upozornění **DŮLEŽITÉ BEZPEČNOSTNÍ POKYNY**

Tento upozorňující symbol označuje nebezpečí. Jste v situaci, která by mohla způsobit nebezpečí úrazu. Před prací na jakémkoliv vybavení si uvědomte nebezpečí související s elektrickými obvody a seznamte se se standardními opatřeními pro předcházení úrazům. Podle čísla na konci každého upozornění vyhledejte jeho překlad v přeložených bezpečnostních upozorněních, která jsou přiložena k zařízení.

USCHOVEJTE TYTO POKYNY

Προειδοποίηση ΣΗΜΑΝΤΙΚΕΣ ΟΔΗΓΙΕΣ ΑΣΦΑΛΕΙΑΣ

Αυτό το προειδοποιητικό σύμβολο σημαίνει κίνδυνο. Βρίσκεστε σε κατάσταση που μπορεί να προκαλέσει τραυματισμό. Πριν εργαστείτε σε οποιοδήποτε εξοπλισμό, να έχετε υπόψη σας τους κινδύνους που σχετίζονται με τα ηλεκτρικά κυκλώματα και να έχετε εξοικειωθεί με τις συνήθεις πρακτικές για την αποφυγή ατυχημάτων. Χρησιμοποιήστε τον αριθμό δήλωσης που παρέχεται στο τέλος κάθε προειδοποίησης, για να εντοπίσετε τη μετάφρασή της στις μεταφρασμένες προειδοποιήσεις ασφαλείας που συνοδεύουν τη συσκευή.

ΦΥΛΑΞΤΕ ΑΥΤΕΣ ΤΙΣ ΟΔΗΓΙΕΣ

אזהרה

הוראות בטיחות חשובות

סימן אזהרה זה מסמל סכנה. אתה נמצא במצב העלול לגרום לפציעה. לפני שתעבוד עם ציוד כלשהו, עליך להיות מודע לסכנות הכרוכות במעגלים חשמליים ולהכיר את הנהלים המקובלים למניעת תאונות. השתמש במספר ההוראה המסופק בסופה של כל אזהרה כד לאתר את התרגום באזהרות הבטיחות המתורגמות שמצורפות להתקן.

שמור הוראות אלה

Opomena

ВАЖНИ БЕЗБЕДНОСНИ НАПАТСТВИЈА

Симболот за предупредување значи опасност. Се наоѓате во ситуација што може да предизвика телесни повреди. Пред да работите со опремата, бидете свесни за ризикот што постои кај електричните кола и треба да ги познавате стандардните постапки за спречување на несреќни случаи. Искористете го бројот на изјавата што се наоѓа на крајот на секое предупредување за да го најдете неговиот период во преведените безбедносни предупредувања што се испорачани со уредот.

ЧУВАЈТЕ ГИ ОВИЕ НАПАТСТВИЈА

Ostrzeżenie **WAŻNE INSTRUKCJE DOTYCZĄCE BEZPIECZEŃSTWA**

Ten symbol ostrzeżenia oznacza niebezpieczeństwo. Zachodzi sytuacja, która może powodować obrażenia ciała. Przed przystąpieniem do prac przy urządzeniach należy zapoznać się z zagrożeniami związanymi z układami elektrycznymi oraz ze standardowymi środkami zapobiegania wypadkom. Na końcu każdego ostrzeżenia podano numer, na podstawie którego można odszukać tłumaczenie tego ostrzeżenia w dołączonym do urządzenia dokumencie z tłumaczeniami ostrzeżeń.

NINIEJSZE INSTRUKCJE NALEŻY ZACHOWAĆ

Upozornenie **DÔLEŽITÉ BEZPEČNOSTNÉ POKYNY**

Tento varovný symbol označuje nebezpečenstvo. Nachádzate sa v situácii s nebezpečenstvom úrazu. Pred prácou na akomkoľvek vybavení si uvedomte nebezpečenstvo súvisiace s elektrickými obvodmi a oboznámte sa so štandardnými opatreniami na predchádzanie úrazom. Podľa čísla na konci každého upozornenia vyhľadajte jeho preklad v preložených bezpečnostných upozorneniach, ktoré sú priložené k zariadeniu.

USCHOVAJTE SI TENTO NÁVOD

Battery Handling

Warning **There is the danger of explosion if the battery is replaced incorrectly. Replace the battery only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.** Statement 1015

Waarschuwing **Er is ontploffingsgevaar als de batterij verkeerd vervangen wordt. Vervang de batterij slechts met hetzelfde of een equivalent type dat door de fabrikant aanbevolen is. Gebruikte batterijen dienen overeenkomstig fabrieksvoorschriften weggeworpen te worden.**

Varoitus **Räjähdyksen vaara, jos akku on vaihdettu väärään akkuun. Käytä vaihtamiseen ainoastaan saman- tai vastaavantyyppistä akkua, joka on valmistajan suosittelema. Hävitä käytetyt akut valmistajan ohjeiden mukaan.**

Attention **Danger d'explosion si la pile n'est pas remplacée correctement. Ne la remplacer que par une pile de type semblable ou équivalent, recommandée par le fabricant. Jeter les piles usagées conformément aux instructions du fabricant.**

Warnung **Bei Einsetzen einer falschen Batterie besteht Explosionsgefahr. Ersetzen Sie die Batterie nur durch den gleichen oder vom Hersteller empfohlenen Batterietyp. Entsorgen Sie die benutzten Batterien nach den Anweisungen des Herstellers.**

Avvertenza **Pericolo di esplosione se la batteria non è installata correttamente. Sostituire solo con una di tipo uguale o equivalente, consigliata dal produttore. Eliminare le batterie usate secondo le istruzioni del produttore.**

Advarsel **Det kan være fare for eksplosjon hvis batteriet skiftes på feil måte. Skift kun med samme eller tilsvarende type som er anbefalt av produsenten. Kasser brukte batterier i henhold til produsentens instruksjoner.**

Aviso **Existe perigo de explosão se a bateria for substituída incorrectamente. Substitua a bateria por uma bateria igual ou de um tipo equivalente recomendado pelo fabricante. Destrua as baterias usadas conforme as instruções do fabricante.**

¡Advertencia! **Existe peligro de explosión si la batería se reemplaza de manera incorrecta. Reemplazar la batería exclusivamente con el mismo tipo o el equivalente recomendado por el fabricante. Desechar las baterías gastadas según las instrucciones del fabricante.**

Varning! **Explosionsfara vid felaktigt batteribyte. Ersätt endast batteriet med samma batterityp som rekommenderas av tillverkaren eller motsvarande. Följ tillverkarens anvisningar vid kassering av använda batterier.**

Figyelem **Robbanásveszélyt idézhet elő, ha helytelenül cserélik ki az akkumulátort. Csak a gyártó által javasolttal megegyező vagy azzal egyenértékű típusúra cserélje ki az akkumulátort! A használt akkumulátorok kidobásakor tartsa be a gyártó előírásait!**

Предупреждение При неправильной замене батареи возможен взрыв. Для замены следует использовать батарею того же или аналогичного типа, рекомендованного изготовителем. Утилизацию батареи необходимо производить в соответствии с указаниями изготовителя.

警告 电池更换不当会有爆炸危险。请只用同类电池或制造商推荐的功能相当的电池更换原有电池。请按制造商的说明处理废旧电池。

警告 不適切なバッテリに交換すると、爆発の危険性があります。製造元が推奨するものと同じまたは同等のバッテリだけを使用してください。使用済みのバッテリは、製造元が指示する方法に従って処分してください。

Invisible Laser Radiation

Warning	**Invisible laser radiation present.** Statement 1016
Waarschuwing	**Onzichtbare laserstraling aanwezig.**
Varoitus	**Näkymättömiä lasersäteitä.**
Attention	**Rayonnement laser actif mais invisible.**
Warnung	**Unsichtbare Laserstrahlung.**
Avvertenza	**Radiazione laser invisibile.**
Advarsel	**Usynlig laserstråling.**
Aviso	**Radiação laser invisível presente.**
¡Advertencia!	**Existe radiación láser invisible.**
Varning!	**Nu pågående osynlig laserstrålning.**
Figyelem	**Láthatatlan lézersugárzás van jelen.**
Предупреждение	Присутствует невидимое лазерное излучение.
警告	还存在不可见的激光辐射。
警告	目に見えないレーザー光線が放射されています。

Jewelry Removal Warning

Warning **Before working on equipment that is connected to power lines, remove jewelry (including rings, necklaces, and watches). Metal objects will heat up when connected to power and ground and can cause serious burns or weld the metal object to the terminals.** Statement 43

Waarschuwing **Alvorens aan apparatuur te werken die met elektrische leidingen is verbonden, sieraden (inclusief ringen, kettingen en horloges) verwijderen. Metalen voorwerpen worden warm wanneer ze met stroom en aarde zijn verbonden, en kunnen ernstige brandwonden veroorzaken of het metalen voorwerp aan de aansluitklemmen lassen.**

Varoitus **Ennen kuin työskentelet voimavirtajohtoihin kytkettyjen laitteiden parissa, ota pois kaikki korut (sormukset, kaulakorut ja kellot mukaan lukien). Metalliesineet kuumenevat, kun ne ovat yhteydessä sähkövirran ja maan kanssa, ja ne voivat aiheuttaa vakavia palovammoja tai hitsata metalliesineet kiinni liitäntänapoihin.**

Attention **Avant d'accéder à cet équipement connecté aux lignes électriques, ôter tout bijou (anneaux, colliers et montres compris). Lorsqu'ils sont branchés à l'alimentation et reliés à la terre, les objets métalliques chauffent, ce qui peut provoquer des blessures graves ou souder l'objet métallique aux bornes.**

Warnung **Vor der Arbeit an Geräten, die an das Netz angeschlossen sind, jeglichen Schmuck (einschließlich Ringe, Ketten und Uhren) abnehmen. Metallgegenstände erhitzen sich, wenn sie an das Netz und die Erde angeschlossen werden, und können schwere Verbrennungen verursachen oder an die Anschlußklemmen angeschweißt werden.**

Avvertenza **Prima di intervenire su apparecchiature collegate alle linee di alimentazione, togliersi qualsiasi monile (inclusi anelli, collane, braccialetti ed orologi). Gli oggetti metallici si riscaldano quando sono collegati tra punti di alimentazione e massa: possono causare ustioni gravi oppure il metallo può saldarsi ai terminali.**

Advarsel **Fjern alle smykker (inkludert ringer, halskjeder og klokker) før du skal arbeide på utstyr som er koblet til kraftledninger. Metallgjenstander som er koblet til kraftledninger og jord blir svært varme og kan forårsake alvorlige brannskader eller smelte fast til polene.**

Aviso **Antes de trabalhar em equipamento que esteja ligado a linhas de corrente, retire todas as jóias que estiver a usar (incluindo anéis, fios e relógios). Os objectos metálicos aquecerão em contacto com a corrente e em contacto com a ligação à terra, podendo causar queimaduras graves ou ficarem soldados aos terminais.**

¡Advertencia! **Antes de operar sobre equipos conectados a líneas de alimentación, quitarse las joyas (incluidos anillos, collares y relojes). Los objetos de metal se calientan cuando se conectan a la alimentación y a tierra, lo que puede ocasionar quemaduras graves o que los objetos metálicos queden soldados a los bornes.**

Varning! **Tag av alla smycken (inklusive ringar, halsband och armbandsur) innan du arbetar på utrustning som är kopplad till kraftledningar. Metallobjekt hettas upp när de kopplas ihop med ström och jord och kan förorsaka allvarliga brännskador; metallobjekt kan också sammansvetsas med kontakterna.**

Figyelem **Mielőtt hálózati feszültséghez csatlakozó készülékkel kezd el dolgozni, vegye le magáról az ékszereket (például gyűrűt, nyakláncot, órát). A fém tárgyak felmelegszenek, ha hálózati feszültséghez és földhöz érnek, és súlyos égési sérülést okozhatnak, illetve a fém tárgyak hozzáforrhatnak a csatlakozókhoz.**

Предупреждение Прежде чем использовать оборудование, подключенное к электросети, снимите все украшения (включая кольца, ожерелья и часы). Металлические части нагреваются при соединении с источником питания и землей, что может привести к серьезным ожогам или привариванию металлических объектов к клеммам.

警告 在操作与电源线连接的设备以前，请取下首饰（包括戒指、项链和手表）。连接电源和接地后，金属物品会升温，可能导致严重灼伤，也可能使金属物品熔接在线端。

警告 電源に接続されている装置を取り扱う際は、事前に、指輪、ネックレス、腕時計などの装身具をはずしてください。金属のオブジェクトが電源とアースと接触すると、金属が過熱して大やけどをしたり、また金属類が端子に焼き付くことがあります。

Installation Instructions

Warning **Read the installation instructions before connecting the system to the power source.** Statement 1004

Waarschuwing **Raadpleeg de installatie-instructies voordat u het systeem op de voedingsbron aansluit.**

Varoitus **Lue asennusohjeet ennen järjestelmän yhdistämistä virtalähteeseen.**

Attention **Avant de brancher le système sur la source d'alimentation, consulter les directives d'installation.**

Warnung **Vor dem Anschließen des Systems an die Stromquelle die Installationsanweisungen lesen.**

Avvertenza **Consultare le istruzioni di installazione prima di collegare il sistema all'alimentatore.**

Advarsel **Les installasjonsinstruksjonene før systemet kobles til strømkilden.**

Aviso **Leia as instruções de instalação antes de ligar o sistema à fonte de energia.**

¡Advertencia! **Lea las instrucciones de instalación antes de conectar el sistema a la red de alimentación.**

Varning! **Läs installationsanvisningarna innan du kopplar systemet till strömförsörjningsenheten.**

Figyelem **Mielőtt áramforráshoz csatlakoztatná a rendszert, olvassa el az üzembe helyezési útmutatót!**

Предупреждение Перед подключением устройства к источнику электропитания ознакомьтесь с данной инструкцией по установке.

警告 在将系统与电源连接之前，请仔细阅读安装说明。

警告 必ず設置手順を読んでから、システムを電源に接続してください。

Invisible Laser Radiation Warning

Warning **Because invisible laser radiation may be emitted from the aperture of the port when no cable is connected, avoid exposure to laser radiation and do not stare into open apertures.** Statement 70

Waarschuwing **Omdat er onzichtbare laserstraling uit de opening van de poort geëmitteerd kan worden wanneer er geen kabel aangesloten is, dient men om blootstelling aan laserstraling te vermijden niet in de open openingen te kijken.**

Varoitus **Kun porttiin ei ole kytketty kaapelia, portin aukosta voi vuotaa näkymätöntä lasersäteilyä. Älä katso avoimiin aukkoihin, jotta et altistu säteilylle.**

Attention **Etant donné qu'un rayonnement laser invisible peut être émis par l'ouverture du port quand aucun câble n'est connecté, ne pas regarder dans les ouvertures béantes afin d'éviter tout risque d'exposition au rayonnement laser.**

Warnung **Aus der Öffnung des Ports kann unsichtbare Laserstrahlung austreten, wenn kein Kabel angeschlossen ist. Kontakt mit Laserstrahlung vermeiden und nicht in offene Öffnungen blicken.**

Avvertenza **Poiché quando nessun cavo è collegato alla porta, da quest'ultima potrebbe essere emessa radiazione laser invisibile, evitare l'esposizione a tale radiazione e non fissare con gli occhi porte a cui non siano collegati cavi.**

Advarsel **Usynlige laserstråler kan sendes ut fra åpningen på utgangen når ingen kabel er tilkoblet. Unngå utsettelse for laserstråling og se ikke inn i åpninger som ikke er tildekket.**

Aviso **Evite uma exposição à radiação laser e não olhe através de aberturas expostas, porque poderá ocorrer emissão de radiação laser invisível a partir da abertura da porta, quando não estiver qualquer cabo conectado.**

¡Advertencia! **Cuando no esté conectado ningún cable, pueden emitirse radiaciones láser invisibles por el orificio del puerto. Evitar la exposición a radiaciones láser y no mirar fijamente los orificios abiertos.**

Varning! **Osynliga laserstrålar kan sändas ut från öppningen i porten när ingen kabel är ansluten. Undvik exponering för laserstrålning och titta inte in i ej täckta öppningar.**

Equipment Installation

Warning **Only trained and qualified personnel should be allowed to install, replace, or service this equipment.** Statement 1030

Waarschuwing **Deze apparatuur mag alleen worden geïnstalleerd, vervangen of hersteld door bevoegd geschoold personeel.**

Varoitus **Tämän laitteen saa asentaa, vaihtaa tai huoltaa ainoastaan koulutettu ja laitteen tunteva henkilökunta.**

Attention	**Il est vivement recommandé de confier l'installation, le remplacement et la maintenance de ces équipements à des personnels qualifiés et expérimentés.**
Warnung	**Das Installieren, Ersetzen oder Bedienen dieser Ausrüstung sollte nur geschultem, qualifiziertem Personal gestattet werden.**
Avvertenza	**Questo apparato può essere installato, sostituito o mantenuto unicamente da un personale competente.**
Advarsel	**Bare opplært og kvalifisert personell skal foreta installasjoner, utskiftninger eller service på dette utstyret.**
Aviso	**Apenas pessoal treinado e qualificado deve ser autorizado a instalar, substituir ou fazer a revisão deste equipamento.**
¡Advertencia!	**Solamente el personal calificado debe instalar, reemplazar o utilizar este equipo.**
Varning!	**Endast utbildad och kvalificerad personal bör få tillåtelse att installera, byta ut eller reparera denna utrustning.**
Figyelem	**A berendezést csak szakképzett személyek helyezhetik üzembe, cserélhetik és tarthatják karban.**
Предупреждение	Установку, замену и обслуживание этого оборудования может осуществлять только специально обученный квалифицированный персонал.
警告	只有经过培训且具有资格的人员才能进行此设备的安装、更换和维修。
警告	この装置の設置、交換、保守は、訓練を受けた相応の資格のある人が行ってください。
주의	교육을 받고 자격을 갖춘 사람만 이 장비를 설치, 교체, 또는 서비스를 수행해야 합니다.

Aviso **Somente uma equipe treinada e qualificada tem permissão para instalar, substituir ou dar manutenção a este equipamento.**

Advarsel **Kun uddannede personer må installere, udskifte komponenter i eller servicere dette udstyr.**

تحذير يسمح للفنيين المتخصصين فقط بتركيب المعدة أو استبدالها أو إجراء الصيانة عليها.

Upozorenje **Uređaj smije ugrađivati, mijenjati i servisirati samo za to obučeno i osposobljeno servisno osoblje.**

Upozornění **Instalaci, výměnu nebo opravu tohoto zařízení smějí provádět pouze proškolené a kvalifikované osoby.**

Προειδοποίηση Η τοποθέτηση, η αντικατάσταση και η συντήρηση του εξοπλισμού επιτρέπεται να γίνονται μόνο από καταρτισμένο προσωπικό με τα κατάλληλα προσόντα.

אזהרה רק עובדים מיומנים ומוסמכים רשאים להתקין, להחליף, או לטפל בציד זה.

Opomena Местењето, заменувањето и сервисирањето на оваа опрема треба да му биде дозволено само на обучен и квалификуван персонал.

Ostrzeżenie **Do instalacji, wymiany i serwisowania tych urządzeń mogą być dopuszczone wyłącznie osoby wykwalifikowane i przeszkolone.**

Upozornenie **Inštaláciu, výmenu alebo opravu tohto zariadenia smú vykonávať iba vyškolené a kvalifikované osoby.**

Two Person Lifting Requirement

Warning **Two people are required to lift the chassis. To prevent injury, keep your back straight and lift with your legs, not your back.** Statement 164

Waarschuwing **Er zijn twee personen nodig om het chassis op te tillen. Om letsel te voorkomen dient u uw rug recht te houden en met uw benen te tillen in plaats van met uw rug.**

Varoitus **Asennuspohjan nostamiseen tarvitaan kaksi henkilöä. Nosta jalkojen (ei selän) avulla pitäen selkäsi suorana, jotta välttäisit loukkaantumista.**

Attention **Le châssis doit être soulevé par au minimum deux personnes. Pour éviter tout risque d'accident, maintenez le dos droit et poussez sur vos jambes. Ne soulevez pas l'unité avec votre dos.**

Warnung **Um das Chassis anzuheben, sind zwei Leute erforderlich. Um Verletzungsgefahr auszuschalten, halten Sie den Rücken gerade und heben Sie mit den Beinen, nicht dem Rücken.**

Avvertenza **Per sollevare il chassis occorre l'intervento di due persone. Onde evitare il rischio di lesioni personali, tenere sempre ben dritta la schiena e piegare solo le gambe durante il sollevamento in modo da scaricare il peso sulle gambe e non sulla schiena.**

Advarsel **Det er nødvendig at to personer løfter kabinettet. Hold ryggen rett og løft med beina - ikke ryggen - for å unngå personskade.**

Aviso **São necessárias duas pessoas para levantar o chassis. Para evitar lesões, mantenha as costas direitas e levante o peso com ambas as pernas, sem forçar as costas.**

¡Advertencia! **Se requieren dos personas para elevar el chasis. Para evitar lesiones, mantenga su espalda en posición recta y levante con sus piernas, no con su espalda.**

Varning! **Det krävs två personer för att lyfta chassit. För att undvika skador ska du hålla ryggen rak och lyfta med benen, inte ryggen.**

Chassis Lifting Warning

Warning **Two people are required to lift the chassis. Grasp the chassis underneath the lower edge and lift with both hands. To prevent injury, keep your back straight and lift with your legs, not your back. To prevent damage to the chassis and components, never attempt to lift the chassis with the handles on the power supplies or on the interface processors, or by the plastic panels on the front of the chassis. These handles were not designed to support the weight of the chassis.** Statement 5

Waarschuwing **Er zijn twee mensen nodig om het frame op te tillen. Het frame dient onder de onderste rand vastgegrepen en met beide handen omhooggetild te worden. Om te voorkomen dat u letsel oploopt, dient u uw rug recht te houden en met behulp van uw benen, niet uw rug, te tillen. Om schade aan het frame en de onderdelen te voorkomen, mag u nooit proberen om het frame op te tillen aan de handvatten op de voedingen of op de interface-processors of aan de kunststof panelen aan de voorkant van het frame. Deze handvatten zijn niet ontworpen om het gewicht van het frame te dragen.**

Varoitus **Asennuspohjan nostamiseen tarvitaan kaksi henkilöä. Ota ote asennuspohjan alareunasta ja nosta molemmin käsin. Pitäen selkäsi suorana nosta jalkojen (ei selän) avulla, jotta välttäisit loukkaantumista. Älä yritä nostaa asennuspohjaa virtalähteen tai liitäntäprosessorin kahvoista tai asennuspohjan etuosan muovipaneeleista, jotta estät asennuspohjan ja rakenneosien vaurioitumisen. Näitä kahvoja ei ole suunniteltu kestämään asennuspohjan painoa.**

Attention **Il faut deux personnes pour soulever le châssis. Le saisir par son rebord inférieur et soulever des deux mains. Pour éviter tout trauma de la région lombaire, garder le dos droit et soulever la charge en redressant les jambes. Pour éviter d'endommager le châssis et ses composants, ne jamais tenter de le soulever par les poignées des blocs d'alimentation ou des processeurs d'interface, ni par les panneaux en plastique à l'avant du châssis. Ces poignées ne sont pas prévues pour supporter le poids du châssis.**

Warnung **Zum Anheben des Chassis werden zwei Personen benötigt. Fassen Sie das Chassis unterhalb der unteren Kante an und heben es mit beiden Händen an. Um Verletzungen zu vermeiden, ist der Rücken aufrecht zu halten und das Gewicht mit den Beinen, nicht mit dem Rücken, anzuheben. Um Schäden an Chassis und Bauteilen zu vermeiden, heben Sie das Chassis nie an den Kunststoffabdeckungen vorne am Chassis oder mit den Griffen am Netzgerät oder an den Schnittstellenprozessoren an. Diese Griffe sind nicht so konstruiert, daß sie das Gewicht des Chassis tragen könnten.**

Avvertenza **Il telaio va sollevato da due persone. Afferrare il telaio al di sotto del bordo inferiore e sollevare con entrambe le mani. Per evitare infortuni, mantenere la schiena diritta e sollevare il peso con le gambe, non con la schiena. Per evitare danni al telaio ed ai componenti, non provare mai a sollevare il telaio tramite le maniglie sugli alimentatori o sui processori di interfaccia oppure tramite i pannelli in plastica sulla parte anteriore del telaio. Queste maniglie non sono state progettate per sostenere il peso del telaio.**

¡Advertencia! **Se necesitan dos personas para levantar el chasis. Sujete el chasis con las dos manos por debajo del borde inferior y levántelo. Para evitar lesiones, mantenga la espalda recta y levántelo con la fuerza de las piernas y no de la espalda. Para evitar daños al chasis y a sus componentes, no intente nunca levantar el chasis por las asas de las fuentes de alimentación o de los procesadores de interfase, ni por los paneles de plástico situados en el frontal del chasis. Las asas no han sido diseñadas para soportar el peso del chasis.**

Advarsel **Det er nødvendig med to personer for å løfte kabinettet. Ta tak i kabinettet under den nedre kanten, og løft med begge hender. Unngå personskade ved å holde ryggen rett og løfte med bena, ikke ryggen. Unngå skade på kabinettet og komponentene ved å aldri prøve å løfte kabinettet etter håndtakene på strømforsyningsenhetene, grensesnittprosessorene eller i plastpanelene foran på kabinettet. Disse håndtakene er ikke beregnet på å tåle vekten av kabinettet.**

Aviso **São necessárias duas pessoas para levantar o chassis. Agarre o chassis imediatamente abaixo da margem inferior, e levante-o com ambas as mãos. Para evitar lesões, mantenha as suas costas direitas e levante o peso com ambas as pernas, sem forçar as costas. Para prevenir danos no chassis e nos seus componentes, nunca tente levantá-lo pelas asas das unidades abastecedoras de energia, nem pelos processadores de interface, ou pelos painéis plásticos localizados na frente do chassis. Estas asas não foram criadas para suportar o peso do chassis.**

Varning! **Det krävs två personer för att lyfta chassit. Fatta tag i chassit under den nedre kanten och lyft med båda händerna. För att undvika skador skall du hålla ryggen rak och lyfta med benen, inte ryggen. Chassit och delarna kan skadas om du försöker lyfta chassit i handtagen på strömförsörjningsenheterna eller gränssnittsprocessorerna, eller i plastpanelerna på chassits framsida. Handtagen är inte konstruerade för att hålla chassits tyngd.**

Figyelem **A ház felemeléséhez két ember szükséges. Fogja meg a házat az alsó széle alatt, és emelje fel két kézzel. Sérülés elkerülése érdekében hátát tartsa egyenesen, és ne a hátával, hanem a lábával végezze az emelést. A ház és az alkatrészek sérülésének elkerülése érdekében soha ne emelje meg a házat a tápegységek vagy az interfészprocesszorok füleinél fogva, sem a ház elején lévő műanyag füleknél fogva. Ezek a fülek nem bírják el a ház súlyát.**

Предупреждение Устройство должны поднимать два человека. Возьмите устройство за нижний край обеими руками и поднимите его. Чтобы избежать травм, держите спину прямо и поднимайте устройство за счет силы мышц ног, а не спины. Чтобы избежать повреждения устройства и его компонентов, никогда не поднимайте устройство за ручки, расположенные на блоках питания и процессорах сопряжения, или за пластиковые панели на передней стороне устройства. Эти рукоятки не способны выдержать вес устройства.

警告 抬升底盘需要两个人。抓住底盘下部边沿，然后用双手抬底盘。为防止受伤，请保持背部挺直，靠双腿的动作而不是靠背部来抬升底盘。为了防止损坏底盘和部件，切勿试图使用电源装置或接口处理器上的手柄或者底盘正面的塑料面板来抬升底盘。这些手柄不能支撑底盘的重量。

警告 シャーシを持ち上げる作業は 2 人で行う必要があります。シャーシの下端に手をかけ、両手で持ち上げます。けがをしないために、背中をまっすぐにし、腰ではなく足に力を入れて持ち上げるようにします。シャーシやコンポーネントの損傷を防ぐために、電源装置およびインターフェイス プロセッサについているハンドルや、シャーシの前面にあるプラスチック パネルを持ってシャーシを持ち上げないでください。これらのハンドルは、装置の重量を支えられる設計にはなっていません。

주의 섀시를 들어올리는 데 두 사람이 필요합니다. 아래 가장자리 밑부분의 섀시를 잡고 양손으로 들어올립니다. 부상을 방지하려면, 등을 수직으로 세우고 등을 사용하지 말고 다리를 사용하여 들어올리십시오. 섀시와 구성품의 손상을 방지하기 위해, 전원 공급 장치 또는 인터페이스 프로세서에 있는 손잡이를 사용하거나 섀시 전면에 있는 플라스틱 패널을 잡고 섀시를 들어올리지 마십시오. 이 손잡이는 섀시의 무게를 감당할 수 있도록 설계되지 않았습니다.

Aviso **São necessárias duas pessoas para suspender o chassi. Segure o chassi por baixo das extremidades da parte inferior e suspenda-o com as duas mãos. Para evitar lesões, mantenha-se ereto e suspenda-o flexionando as pernas sem forçar as costas. Para evitar danos no chassi e em seus componentes, nunca tente suspendê-los pelas alças nas fontes de alimentação ou nos processadores da interface ou pelos painéis plásticos frontais.**

Essas alças não foram projetadas para suportar o peso do chassi.

Advarsel **Der kræves to personer til at løfte chassiset. Tag fat i chassiset under den nederste kant og løft med begge hænder. For at forhindre skader, skal du holde din ryg ret og løfte med benene, ikke ryggen. For at forhindre beskadigelse af chassiset og komponenter, må du aldrig forsøge at løfte chassiset i håndtagene på strømforsyningen eller på interfaceprocessoren, eller i plastikpanelerne på forsiden af chassiset.**

Disse håndtag er ikke beregnede til at bære vægten af chassiset.

تحذير **يجب رفع الهيكل المعدني بواسطة شخصين. امسك الهيكل المعدني من أسفل الجزء السفلي وارفعه بكلتا يديك. لتجنب أي إصابات، اجعل ظهرك مستقيماً وحاول الرفع باستخدام قدميك وليس ظهرك. لتجنب أي ضرر قد يحدث للهيكل المعدني أو المكونات، لا تحاول رفعه من مقابض مصدر التيار أو من معالجات الواجهة أو من اللوحات البلاستيكية الموجودة في الجزء الأمامي من الهيكل المعدني.**
حيث لم يتم تصميم هذه المقابض لدعم وزن الهيكل المعدن

Upozorenje **Kućište trebaju podizati dvije osobe. Prihvatite kućište ispod donjeg ruba i podignite ga objema rukama. Kako se pri tome ne biste ozlijedili, leđa stalno držite uspravna, te podižite nogama, a ne leđima. Kako se kućište i dijelovi ne bi oštetili, kućište nemojte podizati pomoću ručki na jedinicama za napajanje ili na procesorima, kao niti pomoću plastičnih ploča s prednje strane kućišta.**
Te ručke neće moći izdržati težinu kućišta.

Upozornění **K zvednutí skříně jsou zapotřebí dvě osoby. Uchopte skříň pod dolní hranou a oběma rukama ji zvedněte. Abyste předešli poranění, mějte záda narovnaná a zvedejte pomocí nohou, nikoliv zádovými svaly. Abyste předešli poškození skříně a součástí, nikdy se nepokoušejte zvedat skříň za držadla na zdrojích napájení nebo na procesorech rozhraní nebo za plastové panely v přední části skříně.**
Tato držadla nejsou konstruována pro udržení hmotnosti skříně.

Προειδοποίηση Για την ανύψωση του σασί απαιτούνται δύο άτομα. Κρατήστε γερά το σασί από το κάτω μέρος του και ανασηκώστε και με τα δύο σας χέρια. Για να αποφύγετε τον τραυματισμό, κρατήστε την πλάτη σας ίσια και ανασηκώστε με τα πόδια κι όχι με την πλάτη σας. Για να μην προκληθεί ζημιά στο σασί και τα εξαρτήματα, ποτέ μην προσπαθήσετε να ανασηκώσετε το σασί από τις λαβές στο τροφοδοτικό ή στους επεξεργαστές διασύνδεσης, ούτε από τα πλαστικά καλύμματα στην πρόσοψη του σασί.
Αυτές οι λαβές δεν έχουν σχεδιαστεί για να αντέχουν στο βάρος του σασί.

אזהרה נדרשים שני אנשים כדי להרים את התושבת. אחוז את התושבת מתחת לקצה התחתון והרם בשתי ידיים. כדי למנוע פציעה, הקפד על גב ישר והרם בעזרת שרירי הרגליים ולא שרירי הגב. כדי למנוע נזק לתושבת ולרכיבים, בשום מקרה אל תנסה להרים את התושבת בעזרת הידיות שעל ספקי הכוח או שעל ממשקי המעבדים, או בעזרת לוחות הפלסטיק בחלק הקדמי של התושבת.
ידיות אלה לא תוכננו כדי לתמוך ולשאת את משקל התושבת.

Opomena Двајца се потребни за кревање на куќиштето. Фатете го куќиштето одоздола пот долниот раб и кренете го со двете раце. За да се не повредите, држете го грбот исправен и кревајте со нозете, не со грбот. За да не ги оштетите куќиштето и деловите, не обидувајте се да го кренете куќиштето држејќи го за рачките на напојувањата или за рачките на меѓусклопните процесори, ниту држејќи го за пластичните плочи од предната страна на куќиштето.
Рачките не се направени за да ја издржат тежината на куќиштето.

Ostrzeżenie **Obudowę powinny podnosić dwie osoby. Należy ująć obudowę dwiema rękami pod dolną krawędzią. Aby uniknąć urazu, należy utrzymywać proste plecy i podnosić ciężar z wykorzystaniem nóg, a nie kręgosłupa. Aby uniknąć uszkodzenia obudowy i podzespołów, nie należy nigdy próbować podnosić obudowy za uchwyty zasilaczy lub procesorów interfejsu ani za plastikowe panele z przodu obudowy.
Uchwyty te nie są przystosowane do przenoszenia ciężaru całej obudowy.**

Upozornenie **Skriňu musia zdvíhať dvaja ľudia. Chyťte skriňu pod dolnou hranou a obidvomi rukami ju zdvihnite. Aby ste predišli poraneniu, majte chrbát narovnaný a zdvíhajte hmotnosť pomocou nôh, nie pomocou chrbtových svalov. Aby ste predišli poškodeniu skrine a súčastí, nikdy sa nepokúšajte zdvíhať skriňu za držadlá na zdrojoch napájania alebo na procesoroch rozhrania alebo za plastové panely v prednej časti skrine. Tieto držadlá nie sú skonštruované na udržanie hmotnosti skrine.**

Chassis Installation Warning

Warning **At least three people are required to mount the chassis in the equipment rack: two people are needed to hold the chassis in place while a third person tightens the mounting screws.** Statement 234

Waarschuwing **Het chassis moet door ten minste drie personen in het apparatuurrek worden bevestigd. Twee personen houden het chassis in de juiste positie terwijl de derde de bevestiginsschroeven aandraait.**

Varoitus **Tarvitaan ainakin kolme henkilöä asentamaan asennuspohja laitteistotelineeseen: kaksi pitää asennuspohjaa paikoillaan ja kolmas kiristää asennusruuvit.**

Attention **Il faut trois personnes pour monter le châssis dans la baie d'équipement : deux pour maintenir le châssis en place et une autre pour serrer les vis d'assemblage.**

Warnung **Zum Einbauen des Chassis in das Gerätegestell werden mindestens drei Personen benötigt: Zwei Personen sollten das Chassis festhalten, während eine dritte Person die Befestigungsschrauben festzieht.**

Avvertenza **Si richiedono almeno 3 persone per montare il telaio sul rack dell'equipaggiamento: due persone per reggere il telaio nella giusta posizione mentre la terza persona serra le viti di montaggio.**

Advarsel **Det trengs minst tre personer for å montere kabinettet i utstyrshyllen. To personer må holde kabinettet på plass mens en tredje person fester monteringsskruene.**

Aviso **São necessárias pelo menos três pessoas para montar o chassi no suporte do equipamento: duas pessoas para segurar o chassi no lugar e uma terceira pessoa para apertar os parafusos de montagem.**

¡Advertencia! **Se necesitan al menos tres personas para montar el chasis sobre el soporte del equipo: dos personas para mantener el chasis en su lugar y una tercera persona para ajustar los tornillos de montaje.**

Varning! **Det krävs minst tre personer vid monteringen av chassit i avsett instrumentrack: två personer som håller chassit på plats medan en tredje person drar åt monteringsskruvarna.**

Work During Lightning Activity

Warning	**Do not work on the system or connect or disconnect cables during periods of lightning activity.** Statement 1001
Waarschuwing	**Tijdens onweer dat gepaard gaat met bliksem, dient u niet aan het systeem te werken of kabels aan te sluiten of te ontkoppelen.**
Varoitus	**Älä työskentele järjestelmän parissa äläkä yhdistä tai irrota kaapeleita ukkosilmalla.**
Attention	**Ne pas travailler sur le système ni brancher ou débrancher les câbles pendant un orage.**
Warnung	**Arbeiten Sie nicht am System und schließen Sie keine Kabel an bzw. trennen Sie keine ab, wenn es gewittert.**
Avvertenza	**Non lavorare sul sistema o collegare oppure scollegare i cavi durante un temporale con fulmini.**
Advarsel	**Utfør aldri arbeid på systemet, eller koble kabler til eller fra systemet når det tordner eller lyner.**
Aviso	**Não trabalhe no sistema ou ligue e desligue cabos durante períodos de mau tempo (trovoada).**
¡Advertencia!	**No operar el sistema ni conectar o desconectar cables durante el transcurso de descargas eléctricas en la atmósfera.**
Varning!	**Vid åska skall du aldrig utföra arbete på systemet eller ansluta eller koppla loss kablar.**
Figyelem	**Villámlás közben ne dolgozzon a rendszeren, valamint ne csatlakoztasson és ne húzzon ki kábeleket!**

Предупреждение Не следует работать с устройством, а также подключать или отключать кабели во время грозы.

警告 请勿在发生雷电时操作系统，也不要在此期间连接或断开电缆。

警告 雷が発生しているときは、システムに手を加えたり、ケーブルの接続や取り外しを行わないでください。

Disconnect Device

Warning **A readily accessible two-poled disconnect device must be incorporated in the fixed wiring.** Statement 1022

Waarschuwing **Er moet een gemakkelijk toegankelijke, tweepolige stroomverbreker opgenomen zijn in de vaste bedrading.**

Varoitus **Kiinteään johdotukseen on liitettävä kaksinapainen kytkinlaite, johon on helppo päästä käsiksi.**

Attention **Un disjoncteur bipolaire facile d'accès doit être intégré dans le câblage fixe.**

Warnung **Die feste Verdrahtung muß eine leicht zugängliche, zweipolige Trennvorrichtung enthalten.**

Avvertenza **Nei cablaggi fissi va incorporato un sezionatore a due poli facilmente accessibile.**

Advarsel **En lett tilgjengelig, topolet frakoblingsenhet må være innebygd i det faste ledningsnettet.**

Aviso	**Deverá incorporar-se um dispositivo de desconexão de dois pólos de acesso fácil, na instalação eléctrica fixa.**
Advertencia	**El cableado fijo debe incorporar un dispositivo de desconexión de dos polos y de acceso fácil.**
Varning!	**En lättillgänglig tvåpolig frånkopplingsenhet måste ingå i den fasta kopplingen.**
Figyelem	**Fix bekötés esetén jól hozzáférhető kétpólusú megszakítóeszközt kell beépíteni!**
Предупреждение	Стационарная электропроводка должна быть снабжена легкодоступным двухполюсным устройством отключения.
警告	若采用固定布线，必须装配一个方便使用的两端具有接头的断开设备。
警告	固定配線の中で、常に手が届く場所に、2極型切断装置を組み込む必要があります。
주의	액세스할 준비가 되어있고 두개의 단자가 달려있는 연결 해제 장치는 고정된 배선에 통합되어야 합니다.
Aviso	**Um dispositivo de desconexão de dois pólos de fácil acesso deve ser incorporado à fiação fixa.**
Advarsel	**En to-polet afmonteringsenhed med nem adgang skal integreres i det faste ledningsnet.**
تحذير	يجب اتحاد جهاز الفصل ذو القطبين الذي يمكن الوصول إليه بسهولة مع التوصيل الثابت.
Upozorenje	**U električnoj mreži mora biti ugrađen lako dostupan dvopolni uređaj za isključivanje kruga.**

Upozornění **Do elektroinstalace musí být začleněno snadno přístupné dvoupólové odpojovací zařízení.**

Προειδοποίηση Στη σταθερή καλωδίωση πρέπει να συμπεριληφθεί μια διπολική διάταξη αποσύνδεσης, στην οποία είναι εύκολη η πρόσβαση.

אזהרה התקן ניתוק דו-קוטבי הנגיש בקלות חייב להיות מוכלל בחיווט הקבוע.

Opomena Во фиксното ожичување мора да е вграден лесно достапен двополен уред за исклучување.

Ostrzeżenie **W okablowaniu stałym należy zamontować łatwodostępny rozłącznik dwubiegunowy.**

Upozornenie **Do elektroinštalácie musí byť začlenené ľahko prístupné dvojpólové odpájacie zariadenie.**

Cisco 11500 Power Source

Warning **Only a DC power source that is isolated from AC mains with reinforced insulation, and that complies with the other safety extra-low voltage (SELV) requirements in UL950, CSA 950, EN 60950, and IEC950, can be connected to a Cisco 11500 system. This requirement assures that in a catastrophic power source fault condition, hazardous voltages are not present on power terminals and connectors.** Statement 143

Waarschuwing **Alleen een gelijkstroombron die geïsoleerd is van het wisselstroomnet met gewapende isolatie en die voldoet aan de andere veiligheidsvereisten voor extra-laag voltage (SELV) in UL950, CSA 950, EN 60950 en IEC950 mag op een Cisco 11500 systeem worden aangesloten. Dit vereiste verzekert dat bij een catastrofale foutconditie van de stroombron er geen gevaarlijke voltages aanwezig zijn op de stroomaansluitingspunten en connectors.**

Varoitus **Cisco 11500 -järjestelmään saa yhdistää vain tasavirtalähteen, joka on eristetty vaihtovirtalähteistä vahvistetulla eristeellä ja joka noudattaa muita suojattujen erittäin alhaisen jännitteen (SELV) piirien vaatimuksia (UL950, CSA 950, EN 60950 ja IEC950). Tämä vaatimus varmistaa, että katastrofaalisen virtalähteen virhetilanteen sattuessa ei virtapäätteissä ja liitännöissä ole vaarallisia jännitteitä.**

Attention **Pour éviter toute présence de tension dangereuse dans les terminaux d'alimentation et dans les connecteurs en cas de panne d'alimentation grave, le système Cisco 11500 doit être raccordé uniquement à une alimentation CC séparée du secteur CA par une isolation renforcée, conforme aux autres recommandations SELV (Safety Extra-Low Voltage) des normes UL950, CSA 950, EN 60950 et IEC950.**

Warnung **Ein Cisco 11500-System darf nur an eine Gleichstrom-Stromquelle angeschlossen werden, die durch eine verstärkte Isolierung von Wechselstrom-Hauptleitungen isoliert ist und die mit den anderen Sicherheitsanforderungen bezüglich Extra-Niederspannung (SELV) in UL950, CSA 950, EN 60950 und IEC950 übereinstimmt.**

Avvertenza **Solo un alimentatore elettrico DC isolato dal AC principale con materiale isolante rinforzato e aderente a altre esigenze di extra-low voltage (SELV) del UL950, CSA950, EN 60950 e IEC950, può essere collegato a un sistema Cisco 11500. Queste esigenze assicurano che in caso l'alimentatore elettrico dovesse affrontare condizioni catastrofiche, non ci siano rischi di voltaggi pericolosi sui terminali e connettori elettrici.**

Advarsel **Bare likestrømskilder som er isolert fra vekselstrømledninger med ekstra isolasjon, og som oppfyller andre sikkerhetskrav for lavspenning (SELV) i UL950, CSA 950, EN 60950 og IEC950 kan kobles til et Cisco 11500-system. Disse kravene sikrer at hvis det skulle oppstå en katastrofal feil i en strømkilde, er det ikke farlig spenning tilstede på strømterminaler og kontakter.**

Aviso **Apenas uma fonte de alimentação de energia do circuito de corrente contínua que esteja isolada da CA através de um isolamento reforçado, e que esteja em conformidade com os outros requisitos de circuito de tensão extrema inferior de segurança (SELV) em UL950, CSA 950, EN 60950 e IEC950, pode ser conectada ao sistema Cisco 11500. Este requisito assegura que numa situação de avaria catastrófica de potência, não se encontrem presentes voltagens perigosas nos terminais e conectores de potência.**

¡Advertencia! **Sólo una fuente de alimentación de CC con aislamiento reforzado de las fuentes principales de corriente alterna y que cumpla con los demás requisitos de voltajes de seguridad extrabajos (SELV) estipulados en las normas UL950, CSA 950, EN 60950 e IEC950 puede conectarse a un sistema de la serie Cisco 11500. Estos requisitos garantizan que en una condición de falla catastrófica de la fuente de poder, no existan niveles de voltaje peligrosos en los terminales y conectores de alimentación.**

Varning! **Endast en likströmskälla som är isolerad från nätväxelström med förstärkt isolering och som uppfyller de andra kraven för SELV-kretsar (skyddskretsar för mycket låg spänning) i UL950, CSA 950, EN 60950 och IEC950, kan anslutas till ett Cisco 11500-system. Detta krav garanterar att farlig spänning inte kan förekomma på strömterminaler och kontakter under ett katastrofalt strömkällefel.**

DC Power Supply Warning

Warning **The illustration shows the DC power supply terminal block. Wire the DC power supply using the appropriate lugs at the wiring end, or with no lugs, as illustrated. The proper wiring sequence is ground to ground, positive to positive, and negative to negative. Note that the ground wire should always be connected first and disconnected last.** Statement 197

Waarschuwing **De figuur toont de aansluitstrip van de gelijkstroomvoeding. Breng de bedrading aan voor de gelijkstroomvoeding met behulp van de juiste aansluitpunten aan het draadeinde zoals aangegeven. De juiste bedradingsvolgorde is aarde naar aarde, positief naar positief en negatief naar negatief. Let op dat de aarddraad altijd het eerst verbonden en het laatst losgemaakt wordt.**

Varoitus **Kuva esittää tasavirran pääterasiaa. Kytke tasavirtalähde sen kiinnitysalustaan joko korvakkeilla tai ilman niitä kuvan esittämällä tavalla. Oikea kytkentäjärjestys on seuraava: maajohto maajohtoon, positiivinen positiiviseen ja negatiivinen negatiiviseen. Muista, että maajohto yhdistetään aina ensin ja irrotetaan viimeisenä.**

Attention **La figure illustre le bloc de connexion de l'alimentation en courant continu. Câblez l'alimentation en courant continu en fixant les cosses appropriées aux extrémités câblées ou sans utiliser de cosses, conformément au schéma. La séquence de câblage à suivre est terre-terre, positif-positif, et négatif-négatif. Notez que le fil de masse doit toujours être connecté en premier et déconnecté en dernier.**

Warnung **Die Abbildung zeigt den Terminalblock des Gleichstrom-Netzgeräts. Verdrahten Sie das Gleichstrom-Netzgerät unter Verwendung von geeigneten Kabelschuhen am Verdrahtungsende oder ohne Kabelschuhe (siehe Abbildung). Die richtige Verdrahtungsfolge ist Erde an Erde, positiv an positiv und negativ an negativ. Beachten Sie bitte, daß der Erdungsdraht immer als erster verbunden und als letzter abgetrennt werden sollte.**

Avvertenza **L'illustrazione mostra la morsettiera dell alimentatore CC. Cablare l'alimentatore CC usando i connettori adatti all'estremità del cablaggio, oppure senza capicorda, come illustrato. La corretta sequenza di cablaggio è da massa a massa, da positivo a positivo e da negativo a negativo. Tenere presente che il filo di massa deve sempre venire collegato per primo e scollegato per ultimo.**

Advarsel **Figuren viser likestrømforsyningsenhetens tilkoplingsterminal. Likestrømforsyningsenheten tilkoples ved hjelp av passende kabelsko som festes i enden av ledningene, slik som vist i figuren. Riktig tilkoplingssekvens er jord til jord, positiv til positv, og negativ til negativ. Husk at jordingsledningen alltid bør tilkoples først og frakoples sist.**

Aviso **A figura mostra o bloco do terminal de fornecimento de corrente contínua. Ligue o fornecimento de corrente contínua utilizando os bornes apropriados na extremidade do cabo, ou sem bornes, conforme ilustrado. A sequência correcta de instalação é terra-a-terra, positivo-positivo, e negativo-negativo. Note que o fio de terra deverá ser sempre o primeiro a ser ligado, e o último a ser desligado.**

¡Advertencia! **La figura muestra la caja de bornes de la fuente de alimentación. Cablee la fuente de alimentación de corriente continua, utilizando las lengüetas de conexión apropiadas en el extremo del cable, tal como se muestra, o sin lengüetas. Las conexiones deben realizarse en el siguiente orden: tierra con tierra, positivo con positivo y negativo con negativo. Tenga en cuenta que el conductor de tierra siempre tiene que conectarse el primero y desconectarse el último.**

Varning! **Illustrationen visar anslutningsplinten för likströmförsörjningsenheten. Koppla ledningarna till strömförsörjningsenheten med lämpliga kabelskor, eller utan kabelskor, i ledningsändarna som bilden visar. Korrekt kopplingssekvens är jord till jord, positiv till positiv och negativ till negativ. Observera att jordledningen alltid skall anslutas först och kopplas bort sist.**

Figyelem **Az ábra az egyenáramú tápegység sorkapcsait mutatja. Kösse a vezetékeket az egyenáramú tápegység megfelelő kábelsarujaihoz; ha nincs kábelsaru, lásd az ábrát. A vezetékeket a következő sorrendben kell bekötni: föld–föld, pozitív–pozitív, negatív–negatív. Mindig a földelővezetéket kell elsőként csatlakoztatni és azt kell utolsóként leválasztani.**

Предупреждение На рисунке показана контактная колодка источника питания постоянного тока. Подсоедините источник питания постоянного тока, используя подходящие зажимы на конце электропроводки или без зажимов, как показано на рисунке. Правильная последовательность соединения: земля с землей, положительный контакт с положительным контактом, отрицательный контакт с отрицательным контактом. Имейте в виду, что заземляющий провод должен подключаться первым, а отключаться последним.

警告 图示中显示了 DC 电源端子板。在布线端使用适当的端接为 DC 电源布线，或者不用任何端接（如图所示）。正确的布线顺序是地对地、正极对正极、负极对负极。请注意：必须首先进行接地连接，而断开接地连接应在最后进行。

警告 この図はDC 電源装置の端子ブロックを示しています。図のように、配線側で適切なラグを使用して、またはラグを使用しないで、DC 電源装置を配線します。正しい配線の配列は、アース端子からアース端子、プラスからプラス、そしてマイナスからマイナスです。アース コードは常に最初に接続し、最後に切断するように注意してください。

More Than One Power Supply

Warning **This unit might have more than one power supply connection. All connections must be removed to de-energize the unit.** Statement 1028

Waarschuwing **Deze eenheid kan meer dan één stroomtoevoeraansluiting bevatten. Alle aansluitingen dienen ontkoppeld te worden om de eenheid te ontkrachten.**

Varoitus	**Tässä laitteessa voi olla useampia kuin yksi virtakytkentä. Kaikki liitännät on irrotettava, jotta jännite poistetaan laitteesta.**
Attention	**Cette unité peut avoir plus d'une connexion d'alimentation. Pour supprimer toute tension et tout courant électrique de l'unité, toutes les connexions d'alimentation doivent être débranchées.**
Warnung	**Dieses Gerät kann mehr als eine Stromzufuhr haben. Um sicherzustellen, dass der Einheit kein Strom zugeführt wird, müssen alle Verbindungen entfernt werden.**
Avvertenza	**Questa unità può avere più di una connessione all'alimentazione elettrica. Tutte le connessioni devono essere staccate per togliere la corrente dall'unità.**
Advarsel	**Denne enheten kan ha mer enn én strømtilførselskobling. Alle koblinger må fjernes fra enheten for å utkoble all strøm.**
Aviso	**Esta unidade poderá ter mais de uma conexão de fonte de energia. Todas as conexões devem ser removidas para desligar a unidade.**
¡Advertencia!	**Puede que esta unidad tenga más de una conexión para fuentes de alimentación. Para cortar por completo el suministro de energía, deben desconectarse todas las conexiones.**
Varning!	**Denna enhet har eventuellt mer än en strömförsörjningsanslutning. Alla anslutningar måste tas bort för att göra enheten strömlös.**
Figyelem	**Előfordulhat, hogy a készülék többszörösen van csatlakoztatva az áramforráshoz. A készülék áramtalanításához mindegyik csatlakozást meg kell szüntetni.**
Предупреждение	В данном устройстве может использоваться несколько подключений к электросети. Чтобы обесточить устройство, необходимо отключить все эти подключения.
警告	此部件连接的电源可能不止一个。必须将所有电源断开才能停止给该部件供电。

警告	この装置には、複数の電源が接続されている場合があります。装置の電源を完全にオフにするには、すべての電源を切断する必要があります。
주의	본 장치에는 2개 이상의 전원 공급 연결 단자가 있을 수 있습니다. 이 장치의 전원을 차단하려면 모든 연결 단자를 제거해야 합니다.
Aviso	**Esta unidade pode ter mais de uma conexão de fonte de alimentação. Todas as conexões devem ser removidas para interromper a alimentação da unidade.**
Advarsel	**Denne enhed har muligvis mere end en strømforsyningstilslutning. Alle tilslutninger skal fjernes for at aflade strømmen fra enheden.**
تحذير	**قد تتضمن هذه الوحدة أكثر من اتصال بمورد الطاقة. يجب فصل كافة التوصيلات حتى يمكن إفراغ طاقة الوحدة.**
Upozorenje	**Uređaj može imati više priključaka za izvore napajanja. Za potpuno isključivanje napajanja potrebno je iskopčati sve priključke.**
Upozornění	**Toto zařízení může být připojeno k více než jednomu zdroji napájení. Aby se zařízení zcela odpojilo od proudu, musí být odpojeno od všech zdrojů napájení.**
Προειδοποίηση	Αυτή η συσκευή ίσως να έχει περισσότερες συνδέσεις τροφοδοσίας. Για να απενεργοποιηθεί η συσκευή, πρέπει να αφαιρεθούν όλες οι συνδέσεις.
אזהרה	ייתכן שביחידה זו קיים יותר מחיבור אחד לספק כוח. יש להסיר את כל החיבורים כדי להפסיק את אספקת המתח ליחידה.
Opomena	Уредот може да има повеќе од еден приклучок за напојување. Сите приклучоци мора да се извадат за да се прекине доводот на енергија во уредот.

Ostrzeżenie **To urządzenie może mieć podłączone więcej niż jedno źródło zasilania. Aby całkowicie odciąć dopływ energii do urządzenia, należy odłączyć wszystkie źródła zasilania.**

Upozornenie **Toto zariadenie môže byť pripojené k viac ako jednému zdroju napájania. Aby sa zariadenie odpojilo od prúdu, musí byť odpojené od všetkých zdrojov.**

Ground Conductor

Warning **This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.** Statement 1024

Waarschuwing **Deze apparatuur dient geaard te zijn. De aardingsleiding mag nooit buiten werking worden gesteld en de apparatuur mag nooit bediend worden zonder dat er een op de juiste wijze geïnstalleerde aardingsleiding aanwezig is. Neem contact op met de bevoegde instantie voor elektrische inspecties of met een elektricien als u er niet zeker van bent dat er voor passende aarding gezorgd is.**

Varoitus **Laitteiden on oltava maadoitettuja. Älä koskaan ohita maajohdinta tai käytä laitteita ilman oikein asennettua maajohdinta. Ota yhteys sähkötarkastusviranomaiseen tai sähköasentajaan, jos olet epävarma maadoituksen sopivuudesta.**

Attention **Cet équipement doit être mis à la masse. Ne jamais rendre inopérant le conducteur de masse ni utiliser l'équipement sans un conducteur de masse adéquatement installé. En cas de doute sur la mise à la masse appropriée disponible, s'adresser à l'organisme responsable de la sécurité électrique ou à un électricien.**

Warnung **Dieses Gerät muss geerdet sein. Auf keinen Fall den Erdungsleiter unwirksam machen oder das Gerät ohne einen sachgerecht installierten Erdungsleiter verwenden. Wenn Sie sich nicht sicher sind, ob eine sachgerechte Erdung vorhanden ist, wenden Sie sich an die zuständige Inspektionsbehörde oder einen Elektriker.**

Avvertenza **Questa apparecchiatura deve essere dotata di messa a terra. Non escludere mai il conduttore di protezione né usare l'apparecchiatura in assenza di un conduttore di protezione installato in modo corretto. Se non si è certi della disponibilità di un adeguato collegamento di messa a terra, richiedere un controllo elettrico presso le autorità competenti o rivolgersi a un elettricista.**

Advarsel **Dette utstyret må jordes. Omgå aldri jordingslederen og bruk aldri utstyret uten riktig montert jordingsleder. Ta kontakt med fagfolk innen elektrisk inspeksjon eller med en elektriker hvis du er usikker på om det finnes velegnet jordning.**

Aviso **Este equipamento deve ser aterrado. Nunca anule o fio terra nem opere o equipamento sem um aterramento adequadamente instalado. Em caso de dúvida com relação ao sistema de aterramento disponível, entre em contato com os serviços locais de inspeção elétrica ou um eletricista qualificado.**

¡Advertencia! **Este equipo debe estar conectado a tierra. No inhabilite el conductor de tierra ni haga funcionar el equipo si no hay un conductor de tierra instalado correctamente. Póngase en contacto con la autoridad correspondiente de inspección eléctrica o con un electricista si no está seguro de que haya una conexión a tierra adecuada.**

Varning! **Denna utrustning måste jordas. Koppla aldrig från jordledningen och använd aldrig utrustningen utan en på lämpligt sätt installerad jordledning. Om det föreligger osäkerhet huruvida lämplig jordning finns skall elektrisk besiktningsauktoritet eller elektriker kontaktas.**

Figyelem **A berendezés csak megfelelő védőföldeléssel működtethető. Ne iktassa ki a földelés csatlakozóját, és ne üzemeltesse a berendezést szabályosan felszerelt földelő vezeték nélkül! Ha nem biztos benne, hogy megfelelő földelés áll rendelkezésbe, forduljon a helyi elektromos hatóságokhoz vagy egy villanyszerelőhöz.**

Предупреждение Данное устройство должно быть заземлено. Никогда не отключайте провод заземления и не пользуйтесь оборудованием при отсутствии правильно подключенного провода заземления. За сведениями об имеющихся возможностях заземления обратитесь к соответствующим контролирующим организациям по энергоснабжению или к инженеру-электрику.

警告 此设备必须接地。切勿使接地导体失效，或者在没有正确安装接地导体的情况下操作该设备。如果您不能肯定接地导体是否正常发挥作用，请咨询有关电路检测方面的权威人士或电工。

警告 この装置はアース接続する必要があります。アース導体を破損しないよう注意し、アース導体を正しく取り付けないまま装置を稼働させないでください。アース接続が適正であるかどうか分からない場合には、電気検査機関または電気技術者に相談してください。

Installing or Replacing the Unit

Warning **When installing or replacing the unit, the ground connection must always be made first and disconnected last.** Statement 1046

Waarschuwing **Bij installatie of vervanging van het toestel moet de aardverbinding altijd het eerste worden gemaakt en het laatste worden losgemaakt.**

Varoitus **Laitetta asennettaessa tai korvattaessa on maahan yhdistäminen aina tehtävä ensiksi ja maadoituksen irti kytkeminen viimeiseksi.**

Attention **Lors de l'installation ou du remplacement de l'appareil, la mise à la terre doit toujours être connectée en premier et déconnectée en dernier.**

Warnung **Der Erdanschluß muß bei der Installation oder beim Austauschen der Einheit immer zuerst hergestellt und zuletzt abgetrennt werden.**

Avvertenza **In fase di installazione o sostituzione dell'unità, eseguire sempre per primo il collegamento a massa e disconnetterlo per ultimo.**

Advarsel **Når enheten installeres eller byttes, må jordledningen alltid tilkobles først og frakobles sist.**

Aviso **Ao instalar ou substituir a unidade, a ligação à terra deverá ser sempre a primeira a ser ligada, e a última a ser desligada.**

¡Advertencia! **Al instalar o sustituir el equipo, conecte siempre la toma de tierra al principio y desconéctela al final.**

Varning! **Vid installation eller utbyte av enheten måste jordledningen alltid anslutas först och kopplas bort sist.**

Figyelem **A készülék üzembe helyezése és cserélése közben mindig a földelés vezetékét kell elsőként csatlakoztatni és azt kell utolsóként leválasztani.**

Предупреждение При установке или замене устройства контакт заземления должен подключаться первым, а отключаться последним.

警告 安装或更换该部件时，必须首先进行接地连接，而接地连接的断开应在最后进行。

警告 装置を設置または交換するときは、必ずアースを最初に接続し、最後に切断します。

주의 장치를 설치하거나 교체할 때, 항상 접지 연결을 먼저 해야하며 맨 나중에 연결을 해제해야 합니다.

Aviso **Ao instalar ou substituir a unidade, a conexão terra sempre deve ser executada primeiro e desconectada em seguida.**

Advarsel **Ved installation og genmontering af enheden, skal jordforbindelsen altid installeres først og afinstalleres sidst.**

تحذير عند تركيب الوحدة أو استبدالها، يجب إجراء اتصال أرضي ثم فصله بعد ذلك.

Upozorenje **Kod ugradnje uređaja najprije je potrebno priključiti uzemljenje, a kod zamjene to uzemljenje isključiti posljednje.**

Upozornění **Při instalaci nebo výměně zařízení musí být uzemňovací připojení provedeno jako první a odpojeno jako poslední.**

Προειδοποίηση Όταν τοποθετείτε ή αντικαθιστάτε τη συσκευή, η σύνδεση γείωσης πρέπει να γίνεται πρώτη και να αποκαθίσταται τελευταία.

אזהרה במהלך התקנה או החלפה של היחידה, חיבור ההארקה
חייב להיות מחובר תמיד ראשון ומנותק אחרון.

Opomena Кога го местите или заменувате уредот, приклучкот заземјување секогаш треба да се направи прв и да се исклучи последена.

Ostrzeżenie **Podczas instalowania i wymiany urządzenia uziemienie należy zawsze podłączać w pierwszej kolejności, a odłączać jako ostatnie.**

Upozornenie **Pri inštalácii alebo výmene zariadenia musí byť uzemňovacie pripojenie urobené ako prvé a odpojené ako posledné.**

Use Copper Conductors Only

Warning **Use copper conductors only.** Statement 1025

Waarschuwing **Gebruik alleen koperen geleiders.**

Varoitus **Käytä vain kuparijohtimia.**

Attention	**Utilisez uniquement des conducteurs en cuivre.**
Warnung	**Verwenden Sie ausschließlich Kupferleiter.**
Avvertenza	**Usate unicamente dei conduttori di rame.**
Advarsel	**Bruk bare kobberledninger.**
Aviso	**Utilize apenas fios condutores de cobre.**
¡Advertencia!	**Emplee sólo conductores de cobre.**
Varning!	**Använd endast ledare av koppar.**
Figyelem	**Csak rézvezetékeket használjon!**
Предупреждение	Используйте только медные провода.
警告	请只使用铜导体。
警告	銅の導体だけを使用してください。

Short-circuit Protection

Warning **This product requires short-circuit (overcurrent) protection, to be provided as part of the building installation. Install only in accordance with national and local wiring regulations.** Statement 1045

Waarschuwing **Voor dit product moet kortsluitbeveiliging (overstroombeveiliging) deel uitmaken van de installatie in het gebouw. De installatie moet voldoen aan de nationale en lokale bedradingvoorschriften.**

Varoitus **Tämä tuote vaatii suojauksen oikosulkuja (ylivirtaa) vastaan osana asennusta rakennukseen. Asenna ainoastaan kansallisten ja paikallisten johdotussäännösten mukaisesti.**

Attention **La protection de ce produit contre les courts-circuits (surtensions) doit être assurée par la configuration électrique du bâtiment. Vérifiez que l'installation a lieu uniquement en conformité avec les normes de câblage en vigueur au niveau national et local.**

Warnung **Für dieses Produkt ist eine Kurzschlußsicherung (Überstromsicherung) erforderlich, die als Teil der Gebäudeinstallation zur Verfügung gestellt wird. Die Installation sollte nur in Übereinstimmung mit den nationalen und regionalen Vorschriften zur Verkabelung erfolgen.**

Avvertenza **Questo prodotto richiede una protezione contro i cortocircuiti, da fornirsi come parte integrante delle dotazioni presenti nell'edificio. Effettuare l'installazione rispettando le Norme CEI pertinenti.**

Advarsel **Dette produktet krever beskyttelse mot kortslutninger (overspenninger) som en del av installasjonen. Bare installer utstyret i henhold til nasjonale og lokale krav til ledningsnett.**

Aviso **Este produto requer proteção contra curto-circuitos (sobreintensidade de corrente), que deve estar instalada nos edifícios. Instale apenas de acordo com as normas de instalação elétrica nacionais e locais.**

Advertencia **Este producto necesita estar conectado a la protección frente a cortacircuitos (sobretensiones) que exista en el edificio. Instálelo únicamente en conformidad con las regulaciones sobre cableado, tanto locales como nacionales, a las que se tenga que atener.**

Varning! **Denna produkt kräver att kortslutningsskydd (överström) tillhandahålles som en del av byggnadsinstallationen. Installera bara i enlighet med nationella och lokala kabeldragningsbestämmelser.**

Figyelem **A termékhez kötelező rövidzárlat (túláram) elleni védelmet használni, amelyet az épület kábelezésének részeként kell biztosítani. Csak az országos és helyi kábelezési előírásoknak megfelelően helyezhető üzembe.**

Предупреждение Для этого устройства необходима защита от короткого замыкания (перегрузки), являющаяся частью электропроводки здания. При установке устройства необходимо соблюдать региональные и местные требования к электрооборудованию.

警告 此产品需要短路（过载电流）保护，这种保护要由建筑物内的供电电路提供。安装时必须遵守国家和当地有关布线的规章。

警告 この製品は、設置する建物にショート（過電流）保護機構が備わっていることを前提に設計されています。電気配線に関する一般規定および地域の規定に従って設置してください。

주의 이 제품은 단락(과전류) 보호가 필요하며, 이는 건물 설치의 일부로 제공됩니다. 국가 및 해당 지역 배선 규정에 따라 설치하십시오.

Aviso **Este produto requer uma proteção contra curto-circuito (sobrecorrente) que deve fazer parte da instalação do edifício. Faça a instalação somente de acordo com as regulamentações de cabeamento nacionais e locais.**

Advarsel **Dette produkt kræver beskyttelse mod kortslutning (overstrøm). Dette skal være en del elinstallationen i bygningen. Installation skal ske i overensstemmelse med nationale og lokale ledningsregler.**

تحذير **يجب وجود حماية من الدوائر الكهربائية القصير كجزء من تركيب الجهاز. قم بالتركيب طبقاً للتشريعات السلكية المحلية.**

Upozorenje **Za ovaj je proizvod potrebna zaštita od prekomjerne količine struje (kratkoga spoja), koja mora biti ugrađena kao dio električnoga strujnog kruga. Zaštitu ugradite samo u skladu s važećim zakonima i propisima o ožičenju.**

Upozornění **Upozornění: Tento výrobek vyžaduje ochranu proti zkratu (nadproudu), která je součástí instalace budovy. Instalaci provádějte pouze v souladu s platnými předpisy pro elektroinstalaci.**

Προειδοποίηση Αυτό το προϊόν απαιτεί στην κτιριακή εγκατάσταση να περιλαμβάνεται προστασία από βραχυκύκλωμα (υπέρ-ένταση). Η τοποθέτηση να γίνεται μόνο σύμφωνα με τους εθνικούς και τοπικούς κανονισμούς για την καλωδίωση.

אזהרה למוצר זה נדרשת הגנה מפני קצר (זרם-יתר), המסופקת כחלק ממערך ההתקנה. יש להתקין רק בהתאם להנחיות החיווט הנהוגות המדינה וההנחיות המקומיות.

Opomena За производот треба да се обезбеди заштита од краток спој (преголем напон) што е вградена во инсталацијата на зградата. Местете ја инсталацијата само во согласност со националните и помесните прописи за електрично ожичување.

Ostrzeżenie **To urządzenie wymaga zastosowania zabezpieczenia przeciwzwarciowego (nadprądowego) jako elementu instalacji elektrycznej budynku. Należy je instalować zgodnie z krajowymi i lokalnymi przepisami dotyczącymi instalacji elektrycznych.**

Upozornenie **Upozornenie Tento výrobok vyžaduje ochranu proti krátkemu spojeniu (nadprúdu), ktorá je súčasťou inštalácie budovy. Inštaláciu uskutočňujte iba v súlade s platnými predpismi pre elektroinštaláciu.**

Blank Faceplates and Cover Panels

Warning **Blank faceplates and cover panels serve three important functions: they prevent exposure to hazardous voltages and currents inside the chassis; they contain electromagnetic interference (EMI) that might disrupt other equipment; and they direct the flow of cooling air through the chassis. Do not operate the system unless all cards, faceplates, front covers, and rear covers are in place.** Statement 1029

Waarschuwing **Lege vlakplaten en afdekpanelen vervullen drie belangrijke functies: ze voorkomen blootstelling aan gevaarlijke voltages en stroom binnenin het frame, ze bevatten elektromagnetische storing (EMI) hetgeen andere apparaten kan verstoren en ze leiden de stroom van koellucht door het frame. Het systeem niet bedienen tenzij alle kaarten, vlakplaten en afdekkingen aan de voor- en achterkant zich op hun plaats bevinden.**

Varoitus **Tyhjillä tasolaikoilla ja suojapaneeleilla on kolme tärkeää käyttötarkoitusta: Ne suojaavat asennuspohjan sisäisille vaarallisille jännitteille ja sähkövirralle altistumiselta; ne pitävät sisällään elektromagneettisen häiriön (EMI), joka voi häiritä muita laitteita; ja ne suuntaavat tuuletusilman asennuspohjan läpi. Järjestelmää ei saa käyttää, elleivät kaikki tasolaikat, etukannet ja takakannet ole kunnolla paikoillaan.**

Attention **Ne jamais faire fonctionner le système sans que l’intégralité des cartes, des plaques métalliques et des panneaux avant et arrière ne soient fixés à leur emplacement. Ceux-ci remplissent trois fonctions essentielles : ils évitent tout risque de contact avec des tensions et des courants dangereux à l’intérieur du châssis, ils évitent toute diffusion d’interférences électromagnétiques qui pourraient perturber le fonctionnement des autres équipements, et ils canalisent le flux d’air de refroidissement dans le châssis.**

Warnung **Blanke Faceplates und Abdeckungen haben drei wichtigen Funktionen: (1) Sie schützen vor gefährlichen Spannungen und Strom innerhalb des Chassis; (2) sie halten elektromagnetische Interferenzen (EMI) zurück, die andere Geräte stören könnten; (3) sie lenken den kühlenden Luftstrom durch das Chassis. Das System darf nur betrieben werden, wenn alle Karten, Faceplates, Voder- und Rückabdeckungen an Ort und Stelle sind.**

Avvertenza **Le piattaforme bianche e i panelli di protezione hanno tre funzioni importanti: Evitano l'esposizione a voltaggi e correnti elettriche pericolose nello chassis, trattengono le interferenze elettromagnetiche (EMI) che potrebbero scombussolare altri apparati e dirigono il flusso di aria per il raffreddamento attraverso lo chassis. Non mettete in funzione il sistema se le schede, le piattaforme, i panelli frontali e posteriori non sono in posizione.**

Advarsel **Blanke ytterplater og deksler sørger for tre viktige funksjoner: de forhindrer utsettelse for farlig spenning og strøm inni kabinettet; de inneholder elektromagnetisk forstyrrelse (EMI) som kan avbryte annet utstyr, og de dirigerer luftavkjølingsstrømmen gjennom kabinettet. Betjen ikke systemet med mindre alle kort, ytterplater, frontdeksler og bakdeksler sitter på plass.**

Aviso **As faces furadas e os painéis de protecção desempenham três importantes funções: previnem contra uma exposição perigosa a voltagens e correntes existentes no interior do chassis; previnem contra interferência electromagnética (EMI) que poderá danificar outro equipamento; e canalizam o fluxo do ar de refrigeração através do chassis. Não deverá operar o sistema sem que todas as placas, faces, protecções anteriores e posteriores estejam nos seus lugares.**

¡Advertencia! **Las placas frontales y los paneles de relleno cumplen tres funciones importantes: evitan la exposición a niveles peligrosos de voltaje y corriente dentro del chasis; reducen la interferencia electromagnética (EMI) que podría perturbar la operación de otros equipos y dirigen el flujo de aire de enfriamiento a través del chasis. No haga funcionar el sistema a menos que todas las tarjetas, placas frontales, cubiertas frontales y cubiertas traseras estén en su lugar.**

Varning! **Tomma framplattor och skyddspaneler har tre viktiga funktioner: de förhindrar att personer utsätts för farlig spänning och ström som finns inuti chassit; de innehåller elektromagnetisk interferens (EMI) som kan störa annan utrustning; och de styr riktningen på kylluftsflödet genom chassit. Använd inte systemet om inte alla kort, framplattor, fram- och bakskydd är på plats.**

Figyelem **Az előlapok és burkolópanelek három fontos funkciót töltenek be: biztosítják a veszélyes feszültségű és áramerősségű területek érintésvédelmét; elnyelik a más berendezések működésében működési zavarokat okozó elektromágneses interferenciát (EMI); a gépházon belül terelik a hűtőlevegőt. Csak úgy működtesse a rendszert, ha minden kártya, lemez, elülső és hátulsó burkolat a helyén van.**

Предупреждение Заглушки передней панели и защитные панели выполняют три важные функции: помогают избежать поражения электротоком высокого напряжения при прикосновении к внутренним элементам, экранируют электромагнитное излучение, которое может нарушить работу другого оборудования, а также направляют охлаждающий воздушный поток внутри корпуса. Не пользуйтесь устройством со снятыми крышками, заглушками, передними и задними защитными панелями.

警告 空白面板和盖板具有三个重要的功能：它们可以防止接触到底盘内危险的电压和电流；它们将可能破坏其它设备的电磁干扰（EMI）封闭起来；它们可以使冷气流从底盘通过。请勿在全部卡、面板、前盖和后盖未安装完毕时操作系统。

警告 ブランクの前面プレートおよびカバー パネルは、3つの重要な役割を果たします。シャーシ内部の危険な電圧および電流に接触しないように防御の役割を果たします。他の機器に悪影響を与えるEMI（電磁波干渉）を外に出しません。さらに、シャーシ全体に冷却用の空気を流します。カード、前面プレート、前面カバー、および背面カバーがすべて取り付けられてから、システムを稼働させてください。

주의 비어있는 전면케이스 커버와 커버 패널은 다음과 같은 세가지 중요한 역할을 합니다. 섀시 내부의 위험한 전압 및 전류에 노출되는 것을 방지, 기타 장비에 영향을 끼칠 수 있는 전자파 간섭(EMI)을 포함, 냉각 공기를 섀시로 유입. 모든 카드, 전면케이스 커버, 전면 및 후면 커버가 장착되어 있지 않은 경우, 시스템을 작동하지 마십시오.

Aviso **Plaquetas vazias e painéis de proteção têm três funções importantes: impedem a exposição a tensões e correntes elétricas perigosas dentro do chassi; apresentam interferência eletromagnética (EMI) que pode danificar outros equipamentos: direcionam o fluxo do ar refrigerado pelo chassi. Não opere o sistema a menos que todas as placas, plaquetas, tampas frontais e tampas traseiras estejam em seu devido lugar.**

Advarsel **Blanke frontplader og sidepaneler tjener tre vigtige formål: de forhinder udsættelse for farlig spænding og strøm inde i chassiset, de isolerer elektromagnetisk interferens (EMI), der kan forstyre andet udstyr, og de leder en strøm af kølig luft gennem chassiset. Betjen ikke systemet medmindre alle kort, frontplader, sidepaneler og bagpaneler er på plads.**

تحذير **تؤدي كل من الواجهات الفارغة ولوحات التغطية ثلاث وظائف هامة: الحيلولة دون التعرض للجهد الكهربي الخطير والتيارات الموجودة في الهيكل المعدني، حيث يحتوي كلاً منهما على واجهة كهرومغناطيسية ( ) والتي قد تعيق عمل الأجهزة الأخرى كما يقوما بتوجيه تيار التبريد داخل الهيكل المعدني. لا تحاول تشغيل النظام إلا إذا كانت كافة البطاقات والواجهات والأغطية الأمامية والخلفية موضوعة في مكانها.**

Upozorenje **Prazna prednja ploča i pokrovne ploče imaju tri važne funkcije: sprječavaju izlaganje opasnome visokom naponu i struji unutar kućišta, proizvode elektromagnetnu interferenciju koja može ometati rad ostalih uređaja, te usmjeravaju protok rashladnog zraka kroz kućište. Sustav nemojte koristiti ako sve kartice, te prednje, pokrovne i stražnje ploče nisu pravilno ugrađene.**

Upozornění **Prázdné lícové desky a krycí panely mají tři důležité funkce: zabraňují odkrytí nebezpečného napětí a proudu uvnitř skříně; obsahují elektromagnetické rušení, které může rušit jiná zařízení; směřují proud chladícího vzduchu skříní. Nepoužívejte systém, pokud nejsou všechny karty, lícové desky, přední kryty a zadní kryty na svém místě.**

Προειδοποίηση Οι κενές προσόψεις και τα κενά πλαίσια καλύμματος χρησιμεύουν για τρεις σημαντικές λειτουργίες: Αποκλείουν την έκθεση σε επικίνδυνες τάσεις και ρεύματα στο εσωτερικό του σασί, περικλείουν τις ηλεκτρομαγνητικές παρεμβολές (EMI) που ενδέχεται να προκαλέσουν προβλήματα σε άλλο εξοπλισμό και κατευθύνουν τη ροή του αέρα ψύξης μέσα στο σασί. Μην θέτετε το σύστημα σε λειτουργία αν δεν βρίσκονται στη θέση τους όλες οι κάρτες, οι μπροστινές πλάκες, οι προσόψεις και οι πλάτες.

אזהרה לוחות כיסוי ריקים ולוחות כיסוי משמשים לשלוש פונקציות חשובות: הם מונעים חשיפה למתחים מסוכנים ולזרם בתוך התושבת; הם מכילים הפרעות אלקטרומגנטיות (EMI) העלולות לשבש ציוד אחר; והם מכוונים את זרימת האוויר המצנן דרך התושבת. אל תפעיל את המערכת אלא אם כל הכרטיסים, לוחות הכיסוי, הלוחות הקדמיים והכיסויים האחוריים נמצאים במקומם.

Opomena Празните предни плочи и плочите за покривање служат за три важни функции: го спречуваат изложувањето на ризични напони и струи во куќиштето; содржат електромагнетни интерференции (EMI) што можат да попречуваат друга опрема; и го насочуваат протокот на воздухот за разладување низ куќиштето. Не работете со системот ако сите картички, предни плочи, предни капаци и задни капаци не се на своите места.

Ostrzeżenie **To urządzenie może mieć podłączone więcej niż jedno źródło zasilania. Aby całkowicie odciąć dopływ energii do urządzenia, należy odłączyć wszystkie źródła zasilania.**

Upozornenie **Prázdne lícne dosky a krycie panely majú tri dôležité funkcie: zabraňujú odkrytiu nebezpečného napätia a prúdu vnútri skrine; obsahujú elektromagnetické rušenie, ktoré môže rušiť iné zariadenia; smerujú prúd chladiaceho vzduchu cez skriňu. Nepoužívajte systém, pokiaľ nie sú všetky karty, lícne dosky, predné kryty a zadné kryty na svojom mieste.**

Power Module

Warning **Never install an AC power module and a DC power module in the same chassis.** Statement 1050

Waarschuwing **Een voedingsmodule met wisselstroom mag nooit samen met een gelijkstroomvoedingsmodule in het chassis geïnstalleerd worden.**

Varoitus **Älä koskaan asenna vaihtosähkötehomoduulia ja tasasähkötehomoduulia samaan asennuspohjaan.**

Attention **N'installez jamais un module d'alimentation AC et un module d'alimentation DC dans le même châssis.**

Warnung **Ein Wechelstromsmodul und ein Gleichstrommodul dürfen niemals in demselben Chassis installiert werden.**

Avvertenza **Non installare un modulo di alimentazione in corrente alternata e un modulo di alimentazione in corrente continua nello stesso chassis.**

Advarsel **En vekselstrømmodul og en likestrømmodul må aldri installeres i samme chassis.**

Aviso **Nunca instale um modulo de corrente CA (corrente alternada) e um modulo CC (corrente contínua) no mesmo chassis.**

¡Advertencia! **Nunca instale un módulo de potencia de corriente alterna (CA) en un módulo de potencia de corriente continua (CC) en el mismo chasis.**

Varning! **Installera aldrig en växelströms- och en likströmskraftenhet i samma chassi.**

Figyelem **Sose szereljen ugyanabba a gépházba egyszerre váltakozó feszültségű és egyenáramú tápegységet.**

Предупреждение Никогда не устанавливайте модули переменного и постоянного тока в одном корпусе.

警告 切勿将交流电源模块和直流电源模块安装在同一底盘上。

警告 同一のシャーシにAC電源モジュールとDC電源モジュールを取り付けないでください。

Ground Conductor

Warning **This equipment must be grounded. Never defeat the ground conductor or operate the equipment in the absence of a suitably installed ground conductor. Contact the appropriate electrical inspection authority or an electrician if you are uncertain that suitable grounding is available.** Statement 1024

Waarschuwing **Deze apparatuur dient geaard te zijn. De aardingsleiding mag nooit buiten werking worden gesteld en de apparatuur mag nooit bediend worden zonder dat er een op de juiste wijze geïnstalleerde aardingsleiding aanwezig is. Neem contact op met de bevoegde instantie voor elektrische inspecties of met een elektricien als u er niet zeker van bent dat er voor passende aarding gezorgd is.**

Varoitus **Laitteiden on oltava maadoitettuja. Älä koskaan ohita maajohdinta tai käytä laitteita ilman oikein asennettua maajohdinta. Ota yhteys sähkötarkastusviranomaiseen tai sähköasentajaan, jos olet epävarma maadoituksen sopivuudesta.**

Attention **Cet équipement doit être mis à la masse. Ne jamais rendre inopérant le conducteur de masse ni utiliser l'équipement sans un conducteur de masse adéquatement installé. En cas de doute sur la mise à la masse appropriée disponible, s'adresser à l'organisme responsable de la sécurité électrique ou à un électricien.**

Warnung **Dieses Gerät muss geerdet sein. Auf keinen Fall den Erdungsleiter unwirksam machen oder das Gerät ohne einen sachgerecht installierten Erdungsleiter verwenden. Wenn Sie sich nicht sicher sind, ob eine sachgerechte Erdung vorhanden ist, wenden Sie sich an die zuständige Inspektionsbehörde oder einen Elektriker.**

Avvertenza **Questa apparecchiatura deve essere dotata di messa a terra. Non escludere mai il conduttore di protezione né usare l'apparecchiatura in assenza di un conduttore di protezione installato in modo corretto. Se non si è certi della disponibilità di un adeguato collegamento di messa a terra, richiedere un controllo elettrico presso le autorità competenti o rivolgersi a un elettricista.**

Advarsel **Dette utstyret må jordes. Omgå aldri jordingslederen og bruk aldri utstyret uten riktig montert jordingsleder. Ta kontakt med fagfolk innen elektrisk inspeksjon eller med en elektriker hvis du er usikker på om det finnes velegnet jordning.**

Aviso **Este equipamento deve ser aterrado. Nunca anule o fio terra nem opere o equipamento sem um aterramento adequadamente instalado. Em caso de dúvida com relação ao sistema de aterramento disponível, entre em contato com os serviços locais de inspeção elétrica ou um eletricista qualificado.**

¡Advertencia! **Este equipo debe estar conectado a tierra. No inhabilite el conductor de tierra ni haga funcionar el equipo si no hay un conductor de tierra instalado correctamente. Póngase en contacto con la autoridad correspondiente de inspección eléctrica o con un electricista si no está seguro de que haya una conexión a tierra adecuada.**

Varning! **Denna utrustning måste jordas. Koppla aldrig från jordledningen och använd aldrig utrustningen utan en på lämpligt sätt installerad jordledning. Om det föreligger osäkerhet huruvida lämplig jordning finns skall elektrisk besiktningsauktoritet eller elektriker kontaktas.**

Figyelem **A berendezés csak megfelelő védőföldeléssel működtethető. Ne iktassa ki a földelés csatlakozóját, és ne üzemeltesse a berendezést szabályosan felszerelt földelő vezeték nélkül! Ha nem biztos benne, hogy megfelelő földelés áll rendelkezésbe, forduljon a helyi elektromos hatóságokhoz vagy egy villanyszerelőhöz.**

Предупреждение Данное устройство должно быть заземлено. Никогда не отключайте провод заземления и не пользуйтесь оборудованием при отсутствии правильно подключенного провода заземления. За сведениями об имеющихся возможностях заземления обратитесь к соответствующим контролирующим организациям по энергоснабжению или к инженеру-электрику.

警告 此设备必须接地。切勿使接地导体失效，或者在没有正确安装接地导体的情况下操作该设备。如果您不能肯定接地导体是否正常发挥作用，请咨询有关电路检测方面的权威人士或电工。

警告 この装置はアース接続する必要があります。アース導体を破損しないよう注意し、アース導体を正しく取り付けないまま装置を稼働させないでください。アース接続が適正であるかどうか分からない場合には、電気検査機関または電気技術者に相談してください。



Numerics

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